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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

No: 06-112297- -00003-0000

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Act. 400 OPOSIOBSERVTER Folios: 77

FORMULARIO ÚNICO DE OPOSICIÓN
2000-12

OPOSICIÓN A:

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| ☒ Patente de Invención. | ☐ Marca Colectiva. |
| ☐ Patente de Modelo de Utilidad. | ☐ Marca de Certificación. |
| ☐ Diseño Industrial. | ☐ Lema Comercial. |
| ☐ Esquema de Trazado para Circuitos Integrados. | ☐ Marcas de Productos o Servicios. |

SOLICITUD
PUBLICADA

Número Expediente: 06 112297
Solicitante: CONFECCIONES LEONISA S.A.
Agente: JAVIER SERNA BARBOSA
Título de la creación o denominación del signo: PROCESO DE
TERMINADO DE BORDES EN OPERACIONES DE CONFECCIÓN
POR TRANSFERENCIA DE CALOR
Gaceta: Número 581 del 31 de octubre de 2007.

OPOSICIÓN PRESENTADA POR: VER ANEXO

OPOSITOR(ES)

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Tel :
Domicilio:

IDENTIFICACIÓN

C.C. ☐ NIT ☐
C.E. ☐ Otro ☐

Número:

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O APODERADO

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Número : 11.342.699

TP : 73.583

FUNDAMENTOS DE LA OPOSICIÓN:

CAUSAL: Incumplimiento de los requisitos de patentabilidad (Titulo II, Capitulo I, Decisión 486 de la Comunidad Andina). Se violan los artículos 14 (las patentes de invención deben ser nuevas, tener nivel inventivo y ser susceptibles de aplicación industrial) y 16 (las patentes de invención tienen que ser nuevas) y 18 (una invención tiene nivel inventivo si no es obvia para una persona versada en la materia) de la Decisión 486 de la Comunidad Andina.

CSB

Comprobante de pago No. 07 - 92 347
Comprobante de pago No. 07 - 92 348
Comprobante de pago No. 07 - 92 349
Comprobante de pago No. 07 - 92 350
Comprobante de pago No. 07 - 95 472

Fecha : NOVIEMBRE 14 de 2007
Fecha : NOVIEMBRE 14 de 2007
Fecha : NOVIEMBRE 14 de 2007
Fecha : NOVIEMBRE 14 de 2007
Fecha : NOVIEMBRE 23 de 2007

Anexos:

☒ Comprobante de pago de la tasa.

☒ Poder.

☐ Pruebas de los fundamentos de la oposición.

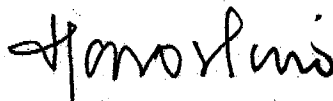
☐ Documentos que se acrediten el legítimo interés, si fuere el caso.

☐ Documento que acredita la existencia y representación legal de las partes, cuando sean personas jurídicas.

NOMBRE: MAURICIO PATIÑO BONNET

FIRMA:

C.C. 11.342.699 T.P. 73.583



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Identificación Nit: 811.026.170-9

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3. Nombre: COMPAÑIA INTERNACIONAL DE SOLUCIONES CREATIVAS S.A.
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Identificación Nit: 811.024.583-8

5. Nombre: WALTER RUIZ (COMERCIALIZADORA INTERNACIONAL TESCO

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Señores

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

División de Nuevas Creaciones

E. S. D.

Ref: Oposición a la Patente de Invención

Denominación: **PROCESO DE TERMINADO DE BORDES EN
OPERACIONES DE CONFECCIÓN POR TRANSFERENCIA DE
CALOR**

Expediente No. 06-112297

Solicitante : CONFECCIONES LEONISA S.A.

MAURICIO PATIÑO BONNET, mayor de edad, vecino de esta ciudad, identificado como aparece al pie de mi firma, actuando como apoderado de las sociedades **C.I. FORMAS INTIMAS S.A., C.I. ELLIPSE S.A., COMPAÑÍA INTERNACIONAL DE SOLUCIONES CREATIVAS S.A. – INSCRA S.A., INDUSTRIAS MORARBE LTDA.** y el señor **WALTER RUIZ** como propietario del establecimiento de comercio **COMERCIALIZADORA INTERNACIONAL TESCO**, por medio del presente memorial me permito presentar en tiempo oposiciones a la solicitud de patente de invención de la referencia.

I. PETICIÓN

Negar el beneficio de patente de invención a la solicitud contenida en el Expediente No. 06-112297, por no cumplir con los requisitos de patentabilidad a que se refieren los artículos 14, 16 y 18 de la Decisión 486 de la Comunidad Andina, con base en los fundamentos de hecho y de derecho que me permito exponer a continuación.

II. LEGÍTIMO INTERÉS

Asiste a las sociedades **C.I. FORMAS INTIMAS S.A., C.I. ELLIPSE S.A., COMPAÑÍA INTERNACIONAL DE SOLUCIONES CREATIVAS S.A. – INSCRA S.A., INDUSTRIAS MORARBE LTDA.** y el señor **WALTER RUIZ** como

propietario del establecimiento de comercio **COMERCIALIZADORA INTERNACIONAL TESCO**, legítimo interés en presentar esta oposición, pues la eventual concesión de la solicitud restringiría injustificadamente el empleo del proceso solicitado para patente de invención, el cual carece de novedad y de nivel inventivo, lo cual iría en detrimento de sus legítimos intereses comerciales y de libre competencia.

III. FUNDAMENTOS DE LA OPOSICIÓN

La solicitud de patente de invención de CONFECCIONES LEONISA S.A. protege en sus reivindicaciones 1 a 7 un procedimiento para el terminado de bordes en operaciones de confección, el cual carece por completo de los requisitos de Novedad y Nivel Inventivo establecidos en la Decisión 486 de la Comunidad Andina como necesarios para merecer el privilegio solicitado.

1. NOVEDAD

La Decisión 486 de la Comunidad Andina, la cual es la legislación vigente en materia de propiedad intelectual en la Comunidad Andina de Naciones, establece en sus artículos 14 y 16, lo referente al requisito de novedad, a saber:

"Artículo 14. Los países miembros otorgarán patentes para las invenciones, sean de producto o procedimiento, en todos los campos de la tecnología, siempre que sean nuevas, tengan nivel inventivo y sean susceptibles de aplicación industrial."

"Artículo 16. Una invención se considerará nueva cuando no esté comprendida dentro del estado de la técnica."

El estado de la técnica comprenderá todo lo que haya sido accesible al público por una descripción escrita u oral, utilización, comercialización o cualquier otro medio antes de la fecha de presentación de la solicitud de patente o, en su caso, de la prioridad reconocida."

El procedimiento descrito en las reivindicaciones 1 a 7 de la solicitud de CONFECCIONES LEONISA S.A. era ampliamente conocido en el estado de la técnica desde antes de la fecha de presentación de dicha solicitud, esto es, antes del 3 de noviembre de 2006, como así lo constatan los documentos que me permito acompañar al presente escrito.

De esta manera, al tenor de lo establecido en los artículos transcritos anteriores, el procedimiento que intenta proteger CONFECCIONES LEONISA S.A. en su solicitud

estaba comprendido en el estado de la técnica dado que ya había sido accesible al público, como lo demuestran infinidad de publicaciones. Para sustentar la carencia de novedad del procedimiento protegido por CONFECCIONES LEONISA S.A., procedemos a analizar cada una de las reivindicaciones propuestas:

REIVINDICACIÓN 1

La reivindicación 1 de la solicitud de CONFECCIONES LEONISA S.A. protege:

"Procesos de terminado de bordes, en operaciones de confección, por transferencia de calor CARACTERIZADOS PORQUE se unen materiales, partes o piezas por medio de una película o material adhesivo, con maquinaria, por transferencia de calor y ciclos definidos de presión, tiempo, temperatura y velocidad."

Esta reivindicación 1 cumple su función de reivindicación independiente, y como tal, describe el alcance general de lo que se desea proteger en la solicitud bajo estudio. Como bien lo puede notar ese Despacho, el aspecto característico de dicho procedimiento recae en la unión por transferencia de calor con una maquinaria de materiales partes o piezas por medio de una película o material adhesivo empleando ciclos de presión, temperatura y velocidad.

Sin embargo, este aspecto característico **NO ES NOVEDOSO**, dado que en el estado de la técnica, particularmente en el campo tecnológico de la producción de confecciones, es ampliamente conocida la técnica de unir materiales por medio de películas o materiales adhesivos mediante transferencia de calor, como así lo sustentan varios documentos.

Así las cosas, y como lo señala la misma solicitud de CONFECCIONES LEONISA S.A., el objetivo de dicha invención es lograr la obtención de bordes mejorados para diversas confecciones mediante la unión de materiales o piezas por transferencia de calor de una película o material adhesivo, en aras de superar los inconvenientes existentes con las uniones de piezas o materiales por medio de costuras. No obstante, la solución al problema de las costuras en las prendas de vestir ya ha habido sido solucionado con anterioridad a la presentación de dicha solicitud, como lo demuestran varios documentos e información publicitaria que me permito describir a continuación.

Por ejemplo, existen diversos documentos de patentes disponibles en el estado de la técnica, anteriores a la fecha de presentación de la solicitud bajo estudio, en los cuáles se evidencia la existencia del procedimiento que pretende proteger CONFECCIONES LEONISA S.A., y que respetuosamente solicito a ese Despacho se sirva tener en cuenta para aceptar los presentes argumentos en su análisis de patentabilidad de la solicitud en estudio. Algunos de tales documentos son:

<u>Documento</u>	<u>Objetivo</u>
WO 2006080027	Una prenda íntima sin costuras
US 20050000622	Proporciona un método para formar una prenda íntima de sensación natural que tienen un ribete o adorno sin costuras.
US 20060150302	Proporciona una prenda íntima que tiene una capa de tela y una banda de borde.
US 20040238103	Proporciona un método para formar un ribete.
US 5.379.888	Una unidad de porción inferior de tipo "Sew Free".
US 7.191.720	Un método para la fabricación de una prenda íntima sin costuras.

De los anteriores, se puede tomar, por ejemplo, el contenido del documento US 20050000622 que en su resumen describe que el método allí revelado incluye la aplicación de una capa adhesiva en una posición seleccionada sobre la prenda íntima blanco; aplicar una capa de tela a la capa adhesiva.

De otra parte, el documento 7.191.720 revela un método para la producción de prendas íntimas sin costuras, el cual incluye la etapa de proporcionar el primer componente de la prenda íntima y proporcionar el segundo componente de la prenda íntima de tal manera que el segundo componente se superpone sobre el primer componente para definir la conexión. Se proporciona una cinta o película adhesiva y se aplica calor al primer y segundo componente. El método también incluye la aplicación de presión al material adhesivo para adherir el primer componente al segundo componente y así proporcionar una prenda íntima sin costuras, como lo pretende reivindicar la solicitud de CONFECCIONES LEONISA S.A..

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AB

Por consiguiente, en el campo de documentos de patentes es claro que ya han sido protegidos procedimientos que contemplan el concepto inventivo de unir materiales o piezas por transferencia de calor empleando una película o material adhesivo en la confección de prendas, particularmente de prendas íntimas, como lo pretende reivindicar CONFECCIONES LEONISA S.A.. Los anteriores documentos son apenas algunos ejemplos ilustrativos de la amplia variedad de patentes existentes.

A nivel comercial, existen en el mercado diversas publicaciones publicitarias como revistas que enseñan prendas íntimas femeninas que exhiben el concepto inventivo de bordes sin costuras creado por la unión de materiales por transferencia de calor, tal como lo propone la solicitud de CONFECCIONES LEONISA S.A.. Algunas de tales revistas incluyen:

- Revista Le Bon, Campaña 14 de 2006,
- Catálogo moda íntima femenina, No. 93 - 2º Semestre 1999,
- Revista BODYWEAR global, 08-2002, página 13,
- Revista BODYWEAR global, 01-2002, página 11,

Particularmente, estas dos últimas publicaciones del año 2002 evidencian la existencia de la tecnología de "no costuras" para ropa íntima femenina, lo cuál corresponde al concepto inventivo de unión de los materiales o piezas que constituyen la prenda íntima por transferencia de calor mediante una película o material adhesivo.

Ahora bien, el proceso reivindicado en la solicitud de CONFECCIONES LEONISA S.A. se materializa mediante maquinaria específica que permite la formación de los bordes sin costuras empleando el concepto inventivo de unión de materiales por transferencia de calor. Sobre este particular, en el estado de la técnica también existen catálogos publicitarios que demuestran la existencia de dichas maquinarias. Tal es el caso de la maquinaria proveniente de la Compañía MACPI que permite la realización de un procedimiento como el reivindicado por CONFECCIONES LEONISA S.A., de los cuales me permito anexar una copia informal. Tales catálogos están identificados como "All in one. The ultimate Solutions" bajo los números 335- 02/22; 335-40/41/42, y 335-30/31/32, correspondientes a cada una de las modalidades de formación de bordes. En cada uno de dichos catálogos se ilustran maquinarias, condiciones de operación, el empleo de la pieza o material de unión en conjunción con el material adhesivo y el borde resultante.

Ahora bien, aunque la reivindicación adolece de claridad, dado que no establece con precisión los ciclos de presión, temperatura y velocidad requeridos para llevar a cabo el proceso, también es claro que los procesos conocidos en el estado de técnica también contemplan la operación bajo condiciones de temperatura, presión y velocidad dependiendo del tipo de prenda que se desea obtener y el tipo de material que se utiliza en cada proceso. Entonces, no resulta novedoso el hecho que se haga referencia en la solicitud de CONFECCIONES LEONISA S.A. a condiciones de operación que son lógicas cuando se trata de la elaboración de prendas que desarrollan el aspecto inventivo bajo estudio.

Por consiguiente, se ha demostrado que la reivindicación 1 de la solicitud de CONFECCIONES LEONISA S.A., como la reivindicación más importante porque desarrolla el aspecto general de la invención, carece completamente de novedad. Se acompañan al presente escrito documentos que certifican que el aspecto técnico de formar bordes en prendas mediante la unión de materiales o piezas por transferencia de calor y el uso de una película o material adhesivo es ampliamente conocido en el estado de la técnica.

REIVINDICACIONES 2 A 5

Estas reivindicaciones están dirigidas a caracterizar los tres tipos de aplicaciones que son posibles con el método de la reivindicación 1, tales como el envivado o ribeteado; el sobrepuesto; y el de dobladillo.

Estos tres tipos de procesos son ampliamente conocidos en el estado de la técnica como métodos para la obtención de bordes. Ahora bien, la conexión de estas aplicaciones con bordes sin costuras también son ampliamente conocidas. Sobre este particular, me permito acompañar a este escrito copia de algunos catálogos promocionados por la Compañía SCHIPS: Sewing And Ultrasonic Technology, con los cuales se evidencia la existencia y conocimiento previo de la técnica de formación de bordes de acuerdo con cada una de las anteriores aplicaciones.

Por ejemplo, el catálogo identificado como BFO: Bonding Folded Elastic corresponde al envivado o ribeteado; el catálogo identificado como BEE: Bonding Elastic to the Edge corresponde al superpuesto; y el catálogo identificado como BHE: Bonding hem corresponde al dobladillo. Adicionalmente, me permito dirigir nuevamente la atención de ese Despacho a los catálogos publicitarios identificados como "All in one. The

ultimate Solutions" bajo los números 335- 02/22; 335-40/41/42, y 335-30/31/32, correspondientes a cada una de las modalidades de formación de bordes, como los que pretende reivindicar CONFECCIONES LEONISA S.A. a través de estas reivindicaciones 2 a 5.

Por consiguiente, los anteriores documentos demuestran que el contenido de las reivindicaciones 2 a 5 conectado con el aspecto inventivo de la reivindicación 1 de la solicitud de CONFECCIONES LEONISA S.A. carece completamente de novedad, dado que tales aplicaciones para la formación de bordes con la técnica de unión con materiales adhesivos por transferencia de calor ya eran de conocimiento público antes de la fecha de presentación de la solicitud de CONFECCIONES LEONISA S.A.

REIVINDICACIÓN 6

Esta reivindicación caracteriza la película o el material adhesivo que se emplea para la unión de las piezas por transferencia de calor del método descrito en la reivindicación 1.

Como bien lo puede notar ese Despacho, esta reivindicación identifica un material adhesivo específico que se emplea convencionalmente en la industria de la confección. Sin embargo, este material adhesivo como elemento esencial en la unión de materiales o piezas por transferencia de calor también carece de novedad, en virtud a que tal aspecto ya es conocido en el estado de la técnica.

De hecho, para demostrar el uso de estos materiales adhesivos como materia prima para la elaboración de bordes en la industria de la confección, me permito anexar copia informal de una factura de venta de TESCO. Comercializadora Internacional a INSCRA S.A, por medio de la cual se comercializa un Adhesivo de Poliolefina Tipo Web, cuya temperatura de Activación es de 105°C. Como bien lo puede notar ese Despacho, esta Factura de Venta tiene fecha 24 de abril de 2006, lo cual evidencia el empleo de este tipo de materiales en la industria de la confección cuyo propósito es el de servir como material adherente entre dos piezas cuando se aplica calor.

Por consiguiente, esta reivindicación de la solicitud de CONFECCIONES LEONISA S.A. también carece de novedad, puesto que existen documentos que sustentan la existencia de materiales o películas adhesivas para la formación de bordes en prendas íntimas por transferencia de calor.

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REIVINDICACIÓN 7

Esta reivindicación caracteriza el método de la reivindicación 1 al establecer condiciones de presión y temperatura bajo las cuales se desarrolla la unión de los materiales. De esta manera, la invención de CONFECCIONES LEONISA S.A. intenta establecer como aspecto característico algunas de las condiciones de proceso bajo las cuales se puede llevar a cabo el procedimiento reivindicado en dicha solicitud.

Sin embargo, me permito manifestar a ese Despacho que estas condiciones de presión y temperatura también son ampliamente conocidas en el campo tecnológico de las confecciones que emplean el concepto de unión de materiales por transferencia de calor.

De hecho, los catálogos publicitarios identificados como "All in one. The ultimate Solutions" bajo los números 335- 02/22; 335-40/41/42, y 335-30/31/32, señalados anteriormente hacen referencia a condiciones de temperatura, velocidad y presión, lo cual evidencia que el control de estas condiciones ya son ampliamente conocidas en el estado de la técnica cuando se emplea un proceso como el descrito en la solicitud de CONFECCIONES LEONISA S.A.. Estas condiciones varían de acuerdo con el tipo de material que se emplea y el artículo que se desea confeccionar. Por consiguiente, el hecho que la reivindicación 7 establezca condiciones específicas no constituye un aspecto técnico que se pueda considerar como novedoso.

De esta manera, se ha demostrado que el proceso de las reivindicaciones 1 a 7 de la solicitud de CONFECCIONES LEONISA S.A., ya era ampliamente conocido en el estado de la técnica, porque ya existía un proceso para la formación de bordes en prendas íntimas con base en el concepto técnico de unir materiales o piezas mediante transferencia de calor con el empleo de un material adhesivo, lo cual corresponde esencialmente al proceso reivindicado en la solicitud de CONFECCIONES LEONISA S.A.. De hecho, la existencia en el mercado de prendas íntimas que desarrollan tal concepto técnico corrobora la existencia de un procedimiento para su fabricación, tal como el reivindicado en la solicitud de CONFECCIONES LEONISA S.A..

Sobre este particular, atentamente dirijo la atención del señor Examinador a los contenidos del Manual Andino de Patentes que establece: *"Para determinar la novedad de la invención, se debe comprobar si existen anticipaciones del estado de la técnica que contengan explícitamente todas las características técnicas esenciales de la*

invención. El examen de novedad se efectúa comparando elemento por elemento de la invención tal como está definido por las reivindicaciones con los del estado de la técnica¹

En el presente caso, es claro que se están allegando documentos que demuestran que la invención reivindicada por CONFECCIONES LEONISA S.A. ya existe en el estado de la técnica. En otras palabras, los documentos allegados **constituyen anticipaciones de la invención reivindicada por CONFECCIONES LEONISA S.A.**, toda vez que ellos son evidencia de la existencia del proceso de formación de bordes para prendas íntimas por transferencia de calor y el empleo de una película o material adhesivo.

2. NIVEL INVENTIVO

Ahora bien, aunque resulta innecesario demostrar la carencia de Nivel Inventivo de la solicitud de CONFECCIONES LEONISA S.A., en virtud de la existencia de pruebas contundentes que demuestran que el procedimiento reivindicado ya era conocido con anterioridad, es preciso considerar algunos aspectos técnicos que demuestran que la invención de CONFECCIONES LEONISA S.A. habría resultado obvia o evidente para la persona versada en la materia.

Sobre este particular, resulta necesario recordar lo establecido por el artículo 18 de la Decisión 486 de la Comunidad Andina, con respecto al nivel inventivo:

“Se considerará que una invención tiene nivel inventivo, si para una persona normalmente versada en la materia técnica correspondiente, esa invención no hubiese resultado obvia ni se hubiese derivado de manera evidente del estado de la técnica”

Así las cosas, aunque no existieran los documentos acompañados al presente escrito que demuestran la falta de novedad del procedimiento de la solicitud de CONFECCIONES LEONISA S.A., es claro que al tenor de lo dispuesto en el anterior artículo, el procedimiento reivindicado en la solicitud de CONFECCIONES LEONISA S.A. también carecería de nivel inventivo, porque para la persona versada en el campo de la confección de prendas íntimas la invención reivindicada habría resultado obvia a partir de las enseñanzas del estado de la técnica.

¹ Comunidad Andina. Secretaría General. “Manual para el examen de solicitudes de Patentes de invención en las oficinas de propiedad industrial de los países de la Comunidad Andina”, Quito, Ecuador, 2004, página 65.

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En efecto, el procedimiento de las reivindicaciones 1 a 7 carece del requisito de Nivel Inventivo exigido por el artículo 18 de la Decisión 486 de la Comunidad Andina, toda vez que sus etapas y su conformación habrían resultado completamente obvias para una persona técnica que se encuentre en el campo de las prendas íntimas, por las razones que me permito exponer a continuación.

Para tal efecto, es necesario determinar la etapa característica que conforma el proceso de la invención reivindicada por el solicitante. Esta etapa corresponde a la unión de los materiales por transferencia de calor. Partiendo de esta etapa, es claro que habría sido evidente del procedimiento conocido para conformar bordes en prendas a partir de la unión de materiales. Es claro que la eliminación de costuras y su reemplazo por la unión de materiales por transferencia de calor habría sido evidente para la persona versada en la materia.

De la misma manera, la disposición de las condiciones de operación también habrían sido obvias o evidentes dependiendo del tipo de material empleado o el tipo de prenda que se desea obtener. Así las cosas, el aspecto inventivo protegido en la solicitud de CONFECCIONES LEONISA S.A. no habría implicado una actividad intelectual que implicara un salto cualitativo a la regla general. La persona versada en la materia no encontraría inesperado el resultado de lograr bordes de prendas de vestir sin costuras.

Por consiguiente, en el caso de que no existieran los documentos acompañados con el presente escrito, la invención de CONFECCIONES LEONISA S.A. carece de nivel inventivo si se emplean las enseñanzas de los documentos disponibles en el estado de la técnica.

3. CONCLUSIÓN

Se ha demostrado de manera contundente que la invención solicitada por CONFECCIONES LEONISA S.A. carece completamente de los requisitos de NOVEDAD y NIVEL INVENTIVO exigidos por la Decisión 486 de la Comunidad Andina para recibir el privilegio de patente solicitado.

En efecto, se ha demostrado que las reivindicaciones de procedimiento 1 a 7 de la solicitud de CONFECCIONES LEONISA S.A. carecen de Novedad, porque en el estado de la técnica ya existía un proceso como el reivindicado dirigido a la formación de bordes en las prendas de vestir mediante la unión de materiales o piezas por

transferencia de calor y empleando un material adhesivo, como es el propósito del procedimiento reivindicado en la solicitud de CONFECCIONES LEONISA S.A., tal como lo sustentan los documentos acompañados con el presente escrito.

Adicionalmente, en el mercado se conocen prendas íntimas que exhiben el aspecto técnico de bordes sin costuras. Los catálogos publicitarios y las copias de las revistas adjuntadas al presente escrito así lo demuestran. De la misma manera, son ampliamente conocidas las maquinarias para desarrollar tal aspecto técnico.

De otra parte, aunque se ha demostrado que la carencia de novedad del proceso reivindicado por CONFECCIONES LEONISA S.A. es evidente, también se ha demostrado que el procedimiento reivindicado también carecería de NIVEL INVENTIVO, dado que para la persona versada en la materia habría sido obvio el diseño de tal procedimiento y la obtención del resultado a partir de los conocimientos disponibles para tal fin.

En efecto, si no existieran los documentos acompañados en el presente escrito, es claro que para una persona versada en la materia que pensara en obtener un producto de confección, como el reivindicado en la solicitud de CONFECCIONES LEONISA S.A., habría resultado obvio el empleo de reemplazar las costuras por una técnica que permitiera lograr el concepto de unión de las piezas o materiales.

De hecho, en el estado de la técnica existen varios documentos que enseñan procesos similares como el reivindicado con propósitos similares. Por consiguiente, no existe nada en el proceso reivindicado que pueda resultar inesperado para la persona versada en la materia o que pueda constituir un aporte al estado de la técnica, como para considerar que exhiba nivel inventivo.

IV. FUNDAMENTOS DE DERECHO

Son fundamentos de derecho los artículos 14, 16 y 18 (requisitos de patentabilidad) y el artículo 42 (oposiciones) de la Decisión 486 de la Comunidad Andina.

V. PRUEBAS

Ruego que el Despacho tenga en cuenta las siguientes pruebas:

- 1A
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- (i) Copia informal del "abstract" de los documentos WO 2006080027; US 20050000622; US 20060150302; US 20040238103; US 5.379.888; y US 7.191.720.
 - (ii) Copia informal de Revista Le Bon, Campaña 14 de 2006,
 - (iii) Copia informal de Revista BODYWEAR global, 08-2002, página 13,
 - (iv) Copia informal de Revista BODYWEAR global, 01-2002, página 11,
 - (v) Copia informal de los catálogos promocionados por la Compañía SCHIPS: Sewing And Ultrasonic Technology, identificados como BFO: Bonding Folded Elastic corresponde al envivado o ribeteado;
 - (vi) Copia informal del catálogo identificado como BEE: Bonding Elastic to the Edge corresponde al superpuesto;
 - (vii) Copia informal del catálogo identificado como BHE: Bonding hem corresponde al dobladillo.
 - (viii) Copia informal de los catálogos publicitarios identificados como "All in one. The ultimate Solutions" bajo los números 335- 02/22; 335-40/41/42, y 335-30/31/32; y
 - (ix) Copia informal de la Factura de Venta #0959 de TESCO. Comercializadora Internacional a INSCRA S.A de la comercialización de un material adhesivo de poliolefina tipo WEB (POF4614).

VI. PERSONERÍA

Me permito adjuntar documentos de poder a mí conferidos por las sociedades **C.I. FORMAS INTIMAS S.A., C.I. ELLIPSE S.A., COMPAÑÍA INTERNACIONAL DE SOLUCIONES CREATIVAS S.A. – INSCRA S.A., INDUSTRIAS MORARBE LTDA.** y por el señor **WALTER RUIZ** como propietario del establecimiento de comercio **COMERCIALIZADORA INTERNACIONAL TESCO.**

VII. NOTIFICACIONES

El suscrito recibirá notificaciones en la secretaría de su Despacho o en mi oficina de abogado, ubicada en la Carrera 9 No. 74-08, Oficina 305, de la ciudad de Bogotá, D.C.

A SEAMLESS GARMENT

FIELD OF THE INVENTION:

This invention relates to "A Seamless Garment". Particularly, the invention relates to a woven seamless garment. More particularly, the invention relates to a woven seamless garment fitting to the size. Still more particularly, the invention relates to a woven seamless garment ready to use is produced directly. Yet more particularly the invention relates to flat woven seamless garments for men, women, children including and not limited to various shapes and configurations, multicolour designs and decorations such as surface ornamentation, embroidery or other handicraft work or accessories on the garment. Further, the garments are woven using any kind of yarn. Even more particularly, the invention relates to a process for producing such garments. Specifically, cutting of fabric to desired shape and interlocking or stitching or joining of the cut pieces so obtained is eliminated. The process is also capable of simultaneously providing inbuilt lining to the garment. Yet more particularly, the invention also provides a machine adapted to weaving ready to use garments. BACKGROUND OF THE INVENTION:

Seamless garments are in vogue and the demand for such garments particularly under wears is increasing. Presently these seamless garments available in the market are knitted one. Woven garments are not available. Seamless garment made of tubular material are well known. Additionally one-piece garments particularly seamless under wears are also known and available in the market. Circular knit woollen garments are also known. However, these garments are mostly produced using circular knitting employing lightweight thin yarns. Further, only one yarn is engaged while single rotary knit. The applicant knows of no prior

art for seamless flat woven body garment fitting to size incorporating various designs, panels and accessories as an integral part of weaving.

Prior art, somewhat relevant to the present invention, known to the inventor relates to US Patent No. 4,956,879 and its divisional application No US 5,058,208. These patents describe garment like child's slipper, having body portion made of sheet material, without seams, having lengthwise opening and closing arrangements. The parts of the garments such as leg portions have lengthwise extending seams to close them. Further the foot portions and sleeves have to be secured in place by stitching to or interlocking with the main body part. US 3,937,039 relates to one-piece circular knit pantyhose having an intermediate panty portion and two integral leg portions formed from a single rotary knit tubular blank using differential tension knit stitches. The entire garment is knitted using thermo-plastic stretch yarn in order to provide desired stretch and shape characteristics. Further the waist opening has to be provided by slitting and fixing elastic band.

US 6,821,294 relates to shaped woven tubular soft-tissue implantable prostheses and a method for manufacturing the same. According to this invention, the diameter, shape and configuration of the tube is monitored simply by gradually changing the number of warps and wefts adopting traditional weaving technique. Engaging and disengaging of warps has to be gradual to avoid holes between contiguous sections. The process cannot be used to provide integral parts of the garment with specific configurations.

UK Patent No. 15,767 discloses the improvement in the machine i.e. weaving looms for selecting and separating warp threads continuously and automatically thereby saving man hours and time. Joseph Marie Jacquard had developed and perfected an attachment applicable to power loom

enabling weaving any design. Jacquard allows a large degree of control over the movement of the warp threads. Further, the attachment is digitised by punching cards which are brought in contact with the needles that control the movement of the wire that lifts the heddle and thereby control the warp movement.

US 6,000,442 relates to a process and apparatus for weaving fabric with three-dimensional bulging zone by increasing density of the crossing points of the warp and wefts. This is achieved by changing the number of

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threads and weave pattern. The loom is adapted to draw the selected warps by providing number of individual warp bobbins to draw multiple warp threads. Generally the weaving looms as shown in the figure 1 comprising of:

1. Warp beam (1) is large roller on which all the warp yarns to be used for the cloth are wound parallel to each other. The beam is located at the back of the loom.
2. Harness (2) - It looks like a picture frame holding series of thin vertical wires called heddles (3), operated to form a shed between the warp threads/ yarns for the insertion of weft threads, each heddle is having a hole, normally designated as eye (4), in the middle for threading the warp yarn through. The harness helps in lowering or raising the warp yarns. At least two harnesses are to be provided.
3. Reed (5) is a frame with thin vertical non-movable wires (6) for keeping warp yarns separated for pushing filling yarns (horizontal threads) firmly against finished cloth after each pick or row, in a desired manner.
4. Breast beam located in the front of the loom to wind the woven cloth and creating a tension with the warp beam and.
5. Cloth beam to roll the cloth as it is constructed.

Generally the width of the fabric is fixed and weaving is done lengthwise wherein the warp yarn is continuously supplied. Certain modifications have been made to the conventional machines as described hereinbefore for allowing the movement of warp yarns or heddles in isolation. However, the wires in the reeds are non-movable and the warp yarn always ends at the cloth end.

SUMMARY OF THE INVENTION:

The main object of the present invention is to provide "A Seamless Garment". The other object of the present invention is to provide a woven seamless garment.

Another object of the present invention is to provide a woven seamless garment fitting to the size.

Yet other object of the present invention is that a woven seamless garment ready to use is produced directly. Yet another object of the present invention is to provide flat woven seamless garments for men, women, children including and not limited to various shapes and configurations, multicolour designs and decorations or accessories on the garment. Further, the garments are woven using any kind of yarn.

Still other object of the present invention is to provide a process for producing such garments. Specifically, the process eliminates cutting of fabric to desired shape and interlocking or stitching or joining of the cut pieces so obtained to produce the garment.

Still another object of the present invention is to provide a machine adapted to weaving ready to use garments as herein before described.

The machine is adapted to hold multiple warp beams and draw the selected warp thread(s) by providing number of individual warp bobbins. Additionally, the warp beams as well as

individual warp rollers/ bobbins can be moved vertically as well as horizontally. The machine has also been provided with the mechanism to enable individual heddles to work in isolation and independent of each other thereby allowing selectively engaging or disengaging specific warp threads at heddles either manually, mechanically or electrically. Generally, the reed of the conventional machine is a frame holding number of wires. However the reed of the machine of present invention is a rod holding multiple plates with hemisphere of different diameters leaving flexibility for the movement of the individual plate as against the entire movement of the frame in conventional machines for beating up action.

Further the plates are adapted to rotate through 180° in order to bring the filling thread on the

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other side of the reed i.e. on the side of woven garment, and maintain uniform desired tension on the warp thread. Further, the machine is adapted to take back to warp beam through same or different reed and harness. There is also provision made to terminate the warp thread selectively at cloth beam end as and when required. Adequate measures are provided for exchanging warp beams, heddles and reed in order to achieve specific shape and configuration. Machine is also provided with additional means to impart ability to keep uniform tension with the warp beam and selectively taking back warp threads to warp beam simultaneously.

BRIEF DESCRIPTION OF THE DRAWINGS:

Fig.1 depicts the parts of the conventional looms

Fig. 2 depicts the parts of the weaving machine of the present invention.

Fig. 3 depicts the details of the warp holder as well as means for returning the warp thread.

Fig. 4 depicts the details of the harness and heddles.

Fig. 5 depicts the details of the reed.

Fig. 6 depicts further details of the roller.

Fig. 7 depicts a perspective view of weave pattern

Fig. 8 depicts the details of the cloth beam.

Fig. 9 depicts the details of tubular pattern in which garment is woven .

Fig. 10 depicts the details of the weaving pattern.

STATEMENT OF THE INVENTION:

Accordingly the present invention provides a seamless garment woven in the form of compressed tubular shape, ready to use and is devoid of any stitching, interlocking or joining the cut pieces by any means. In one of the embodiments of the present invention is that the seamless woven garment is a customised one, fitting to size woven using any type of yarn and provided with various designs, decorations/ ornamentations/accessories such as various conventional design patterns using varied colours, embroidery, appliques, pockets, varied patterns of collars. In another embodiment of the present invention is that the woven seamless garment could be men's wear, women's wear or children's wear.

Yet another embodiment of the present invention is that the woven seamless garment can be provided with lining of same or different fabric or colour.

In accordance with this invention there is provided a process for weaving such garments comprising engaging one or more than one warp beams to provide desired number of warp bobbins/rollers adaptable to provide desired number of threads/yarns, engaging or disengaging or crossing over the warp yarns at predetermined places depending on the design and shape to be achieved, passing the warp yarn in a regulated controlled manner

through the eyes of the heddles provided in the harness, reed and selectively returning back either in same manner or different manner ending at warp beam while holding the finished garment maintaining uniform desired tension with the warp beam and employing conventional wefts mechanism, using a special weaving machine as herein after described.

The garments are woven in a flat compressed tubular manner in a specific folded style, which becomes a shirt, blouse, trousers or any designed customised garment.

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The additional warp yarns may be provided at multi layers where the garments are to be provided with specific curves, extra appendages like sleeve, pocket, collar, some ornamentation or lining.

The warp yarns are drawn under regulated pressure and tension using means not restricted to as herein after described. A person skilled in the art may replace such means by any other means giving same effect.

Warp yarns may be exchanged in any manner by adjusting heddles as well as reeds either in isolation or in groups. Raising of the warp thread/ yarn with the help of heddles may also possibly be done for one or more layers simultaneously so that the filling thread at different layers can be passed at the same time engaging multiple filling threads by any means.

The returning of the yarn may be replaced by interlocking the said yarn with the corresponding yarn from another warp.

Individual yarn may also be engaged, disengaged or diverted in accordance with the desired shape at the cloth beam end.

In accordance with this invention there is also provided a weaving machine for weaving seamless garments comprising a mechanism to hold plurality of warp beams if desired, plurality of warp bobbins/ rollers, a draw mechanism adaptable to draw selective warp

threads in isolation or in groups at a desired tension and in desired manner, open ended heddles with provision for raising or lowering warp threads adaptable to work at one or more layers simultaneously, multiple circular reeds with two hemisphere of different diameter, adaptable for crossing individual warp threads or group of warp threads and rotating through 180° for bringing filling thread(s) after the reed, cloth beam for holding woven garment maintaining desired uniform tension with warp beam and means for selectively returning the warp threads towards warp beam.

One of the embodiments of the invention is that the plurality of beams is stacked on a rack provided with slots for easy transfer of beams from one place to another place.

Other embodiment of this invention is that the individual rollers/ bobbins are hooked on the beams so as to be able to moved either horizontally or vertically as per requirement for supplying desired warp thread.

Another embodiment of this invention is that the draw off mechanism includes a pair of rollers to draw selective warp thread(s) at predetermined tension and speed.

Yet other embodiment of this invention is that the mechanism for guiding the warp thread to heddles may be such as a pair of plates or rods or reeds so that the thread is able to pass between the two elements of the pair.

Yet another embodiment of this invention is that the heddles are open ended so as to enable to raise or lower the thread with comfort. Raising of the warp thread/ yarn with the help of heddles may also possibly be done for one or more layers simultaneously so that the filling thread at different layers can be passed at the same time engaging multiple filling threads by any means.

Still other embodiment of this invention is that the reeds may comprise of circular plates

with two hemispheres of different diameters, the hemisphere with larger diameter capable of

rotating through 180° and capable of moving for exchanging laterally. This gives flexibility

of crossing of woven or unwoven warp threads.

Still another embodiment of this invention is that the desired uniform tension is maintained by holding the woven garment in a pair of roller moving in opposite direction and the upper roller capable of moving side ways.

Further, the means for returning thread may be bobbins or rollers capable of passing thread over the same and get directed towards warp beam. The thread while returning to warp beam may pass in the same reeds and heddles or may adopt different passage.

The invention is further described with the help of the drawings. In accordance with fig. 1 the warp thread(s) pass through the heddles, reed get matted by filling yarns and the constructed cloth is rolled on the beam. Thus the warp thread starts at warp beam and ends at cloth beam. Further, modifications to the machine helps having plurality of warp bobbins creel on a creel to provide flexibility in the movement of individual warp thread. The machines are also provided with Jacquard attachment for allowing raising or lowering of warp threads. However, the machines have no flexibility at reed level and mechanism to control the crossing of individual or group of warp threads for achieving desired pattern. Further, to the best of the knowledge of the inventor, no machine has been provided with mechanism for returning the warp thread to warp beam thereby starting and ending at warp beam.

Fig. 2 shows the weaving machine with its elements of the present invention. Plurality of warps bobbins/rollers provide warp threads 2, the mechanism 3 such as rollers that helps drawing warp thread at a regulated tension and mechanism 4 to guide individual warp thread.

including crossing, to plurality of heddles 5 with eye 6, reed 7, mechanism 9 for holding woven garment at uniform tension, cloth beam 9a and mechanism/ means 10 for returning warp threads selectively.

Fig. 3 shows the details of warp holder or means for returning warp threads to warp beams consisting of frame 14, having plurality of rods/warp beams 11, for holding multiple warp bobbins/rollers/hooks 13 for drawing warp thread selectively and in desired direction. Fig. 4 shows details of harness 15 holding series of heddles 16, with eyes 17, and means 18, for raising or lowering individual warp threads/heddles and means 19 to adjust or accommodate the desired number of heddles in the harness. The warp threads are thus engaged or disengaged by moving up or down. It also may be possible to move entire heddle. Raising of the warp thread/ yarn with the help of heddles may also possibly be done for one or more layers simultaneously so that the filling thread at different layers can be passed at the same time engaging multiple filling threads by any means.

Fig 5 shows reed comprising a rod 20, holding number of circular interchangeable parallel panels/plates with hemisphere of different diameter 22, having slit X that is extended as XI, the said panels/plates are capable of moving through 180° in order to bring the filling thread 23, from heddle side to the other side (woven side) and maintaining uniform desired tension on the warp thread (A). The hemisphere with smaller diameter (X2) remains always in touch with woven garment. Conventional means 22 are provided for accommodating desired number of panels.

Fig. 6 shows the details of multi rollers and the manner in which the warp threads over the rollers move.

However this is one of the ways the roller or hook or bobbin may be provided for directing warp thread (24) in desired direction.

Fig. 7 shows the manner in which warp thread (S) (24) is engaged or disengaged as per requirements of the shape.

Fig. 8 shows the details of the cloth beam for holding woven garments. The mechanism basically comprises two rollers 24 & 25, capable of moving in opposite directions for maintaining desired uniform tension. Additionally, the roller 25, is capable of moving side ways.

In Fig. 9, the dotted lines show how the garment is woven in folded condition.

Fig. 10 shows the conventional weaving pattern as well as weaving pattern adopted by the present invention. As may be noted the weaving pattern of the present invention comprises passing multiple warp

threads from warps 26, through a pair of rollers 27, for drawing individual threads between the said two rollers at a regulated tension, then passing through a pair of reed 28, wherein the warps can be crossed in a desired manner if required, raising or lowering heddles, followed by drawing threads through heddles 29 with flexibility in raising or lowering individual heddle/warp thread, then passing through second pair of reed plates

(30), wherein one may be able to either cross over woven strips or unwoven threads after second reed for providing designs, and pushing the filling thread (s) after the read plates by rotating the said read plates, holding the woven garment between the rollers at cloth beam end and returning back the selected warps threads to warp end.

The broad technical application of selective engagement and disengagement can be adopted judiciously to produce a ready to use customised garment thereby saving the wastage of cloth

reducing man hours and in turn reducing the total cost. The curvatures given while weaving the garment results in value added product.

Adaptability to use any thread including mechanism to produce build-in lining and various panels / accessories of varied nature makes the process user friendly, simple and satisfactory to consumers.

ADVANTAGES:

- 1) The garment for men, women and children wear are seamless and ready to use.
- 2) The garments can be made customised, including ornamentation, depending on the choice for pattern and fabric.
- 3) The garments proved to be saving on cloth, time and money.

www.freepatentsonline.com

Title:

Method of manufacture for stitchless garment.

Document Type and Number:

United States Patent 7191720

Link to this page:

<http://www.freepatentsonline.com/7191720.html>

Abstract:

A stitchless garment and a method of making the stitchless garment are provided. The method is used in connection with manufacturing a circular knit garment using a first garment component and a second garment component. The method includes the steps of providing the first garment component and providing the second garment component so that the second garment component overlaps the first garment component to define a connection. A bonding tape is provided at the connection. Heat is applied to the first garment component and the second garment component. The method also includes the step of applying pressure to the bonding tape to adhere the first garment component to the second garment component to provide a stitchless garment.

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United States Patent 20050000622

Kind Code:

A1

Link to this page:

<http://www.freepatentsonline.com/20050000622.html>

Abstract:

A method of forming a garment blank having a seamless trim is provided. The method includes applying an adhesive layer in a selected position on the garment blank; applying a fabric layer to the adhesive layer; securing the adhesive and fabric layers in the selected position with a seam; and exposing the garment blank to at least one condition sufficient to cause the adhesive layer to bond the fabric layer to the garment blank and the seam to dissipate.

United States Patent 20060150302

Kind Code:

A1

Link to this page:

<http://www.freepatentsonline.com/20060150302.html>

Abstract:

A garment having a fabric layer and an edge band is provided. The edge band and the fabric layer each include a sonically weldable material. The garment has a sonic edge weld securing the edge band to the fabric layer along a cut edge of the garment and an adhesive securing the edge band to the fabric layer. During manufacture, the edge band is placed on the fabric layer, sonic energy is applied so that the fabric layer and the edge band are simultaneously trimmed along a cut edge and welded to one another along the cut edge, and an adhesive between the fabric layer and the edge band is activated to adhere the edge band to the fabric layer.

United States Patent 20040238103

Kind Code:

A1

Link to this page:

<http://www.freepatentsonline.com/20040238103.html>

Abstract:

A method of forming a garment trim is provided. The method includes folding a peripheral edge of a fabric to a selected position to form a cavity, inserting a binding in the cavity, securing the binding in the cavity and the peripheral edge in the selected position with a seam, and exposing the fabric to at least one condition sufficient to cause the binding to bond to the cavity and to dissipate the seam.

United States Patent
Rentos

5,379,888
January 10, 1995

Sew free button assembly

Abstract

A *sew free* replacement button unit in which at least one button is attached to the top side of a fabric section having an adhesive underside. A releasable backing sheet is applied to the adhesive underside of the fabric section and the button is sewn to both the fabric section and the backing sheet.

Inventors: Rentos; Margaret A. (Cicero, NY)

Appl. No.: 08/188,896

Filed: January 31, 1994

Current U.S. Class: 206/265 ; 206/345; 206/348; 206/460; 24/304;
24/66.1; 428/99

Current International Class: A44B 1/00 (20060101); A44B 1/18 (20060101);
B65D 73/02 (20060101); A44B 001/18 Q; A44B
007/00 Q; B65D 085/24 Q

Field of Search: 2/265,266,115 24/9HA,693,DIG.11,304
206/348,345,338,820,460 428/99,137

References Cited [Referenced By]

U.S. Patent Documents

<u>2005879</u>	June 1935	Albright
<u>2462816</u>	February 1949	Schmer, Jr. et al.
<u>2524842</u>	February 1949	Slamon et al.
<u>2671219</u>	March 1954	Levi
<u>2673351</u>	March 1954	Host
<u>3023422</u>	March 1962	Shular
<u>3181219</u>	May 1965	Deshaias
<u>4705167</u>	November 1987	Nakamura
<u>5048160</u>	September 1991	Goodrich et al.

Foreign Patent Documents

140152 Oct., 1949 AU
220897 Apr., 1910 DE
807284 Jan., 1959 GB
887454 Jan., 1962 GB

Primary Examiner: Gehman; Bryon P.
Attorney, Agent or Firm: Harris Beach & Wilcox

Claims

What is claimed is:

1. A *sew-free* button assembly for use with an article of clothing, said assembly comprising:

a fabric section having a front face and a back face,

an adhesive tape applied to the back face of said fabric section,

a releasable backing sheet applied to said adhesive tape that can be peeled away from said adhesive tape to expose an adhesive surface on said fabric section,

a button mounted on the front face of said fabric section and being attached to both said fabric section and the backing sheet by a common thread member whereby the thread member tears away from the backing sheet when the backing sheet is peeled away from said adhesive tape.

2. The assembly of claim 1 wherein said adhesive tape complements the shape of said fabric section.

3. The assembly of claim 2 wherein a plurality of fabric sections are mounted upon said backing sheet.

4. The assembly of claim 3 wherein said fabric sections are linearly disposed upon the backing sheet.

5. The assembly of claim 1 wherein said fabric section is made of the same type of material forming a preselected article of clothing.

6. The assembly of claim 1 wherein said fabric section is oval shaped and the button is centered upon the oval.

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7. A *sew free* button assembly in association with a garment having a plurality of spaced apart button holes aligned along one edge of a garment closure provided on said garment, said assembly including:

a fabric section having a front face and a back face,

an adhesive tape applied to the back face of said fabric section,

a releasable backing sheet applied to the adhesive tape so that said fabric section can be removed from the backing sheet without degrading bonding properties of said adhesive tape,

a series of buttons mounted in spaced apart alignment upon the front face of the fabric section, the button spacing being equal to that of button hole spacing formed in a preselected garment,

each of said buttons being attached to both said fabric section and the backing sheet by a common thread member whereby the thread member tears away from the backing sheet as it is peeled from the fabric section.

8. The *sew free* button assembly of claim 7 wherein said garment is disposable.

Description

BACKGROUND OF THE INVENTION

This invention relates to a *sew free* button assembly for the temporary replacement of missing buttons on *garments* or for use as a closure device on a throw away garment such as a hospital gown or the like.

Articles of clothing such as mens dress shirts which are repeatedly worn and rewashed, are susceptible to considerable wear over their usable lifetime. As a consequence, the threads holding buttons to the garment fabric become weakened and oftentimes break whereupon the button is released from the garment. On these occasions, the wearer typically does not have time to make permanent repairs and either must replace the garment or in extreme cases, wear the garment with a missing button.

Buttons have been devised for temporarily replacing missing buttons, however, these devices have proven for the most part to be less than satisfactory. Typically, these prior art replacement buttons are supported upon a rigid standard that terminates in a point. The pointed end of the standard is driven through the garment at the button site and the penetrating end of the standard thereof grasped by a rather bulky releasable clamp.

The hole left by the button standard weakens the fabric and makes the sewing of

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replacement buttons difficult in that the thread tends to pull through the standard hole when stressed. The replacement button is expensive to manufacture and material costs are relatively high thus making its use economically questionable. Lastly, this type of replacement button can be damaged or damage the garment to which it is secured in the event the garment is passed through an automatic washing machine with the button still attached.

SUMMARY OF THE INVENTION

It is therefore an object of the present invention to improve temporary replacement button for use in association with wearing apparel.

A further object of the present invention is to provide an inexpensive temporary replacement button that can be quickly and efficiently applied to a garment.

A still further object of the present invention is to provide a temporary replacement button for use in association with a garment that will not harm the garment fabric.

Another object of the present invention is to provide a temporary replacement button that will remain attached to the garment for a number of washings and will not harm the garment.

Yet another object of the present invention is to provide a relatively inexpensive button assembly that can be used in association with a throwaway garment.

These and other objects of the present invention are attained by a button assembly that includes at least one fabric section having two sided adhesive tape applied to its back face. A releasable backing sheet is applied to the tape and a button is sewn onto the front face of the fabric with the stitching penetrating both the fabric section and the backing sheet. The stitching is arranged to tear away from the backing sheet when the sheet is removed from the fabric section.

In a further embodiment of the invention, a plurality of buttons are sewn in spaced apart alignment to a single fabric section and the fabric section is then adhesively secured to a throw away garment in registration with the button hole pattern of the garment.

BRIEF DESCRIPTION OF THE DRAWINGS

For a better understanding of these and other objects of the invention, reference will be made to the following detailed description of the invention which is to be read in association with the accompanying drawing, wherein:

FIG. 1 is a side elevation in partial section showing a prior art replacement button;

FIG. 2 is a perspective view showing a strip containing a plurality of replacement buttons embodying the teachings of the present invention;

FIG. 3 is a front elevation illustrating the replacement button of the present invention applied to a garment;

FIG. 4 is an enlarged partial side elevation illustrating a replacement button embodying the teachings of the present invention; and

FIG. 5 is a front elevation of a garment showing a further embodiment of the present invention.

DESCRIPTION OF THE INVENTION

Referring initially to FIG. 1, there is illustrated a typical replacement button unit 10, found in the prior art. The unit includes a button 11 that is secured to the proximal end of a metal rod 12 by any suitable means. The distal end of the rod terminates in a sharp point 13 that permits the rod to be forced through the fabric 14 of a garment such as a dress shirt or the like. A metal clasp 15 is equipped with a spring loaded detent ball 16 that is receivable in a groove 17 formed in the shank of the rod. In assembly, the clasp is forced over the distal end of the rod so that the detent ball is urged into the shank groove thus securing the unit in assembly.

It should be evident from FIG. 1 that forcing the rod through the fabric can damage the fabric and thus shorten the usable life of the garment. Because the button is not sewn to the rod, there is no stitching showing on the surface of the button, thereby giving the button an unnatural appearance. The pointed end of the rod is also exposed posing an annoyance or even a danger to the wearer. Lastly, the rod and clasp arrangement is relatively expensive to manufacture, making the price of a replacement unit relatively high.

FIG. 2 depicts a series of button units 20-20 embodying the teachings of the present invention releasably mounted upon a single backing sheet 25. The sheet can be wound upon itself for ease of storage and the individual units are simply removed from the roll by tearing the strip between units. With further reference to FIGS. 3 and 4, each replacement button unit 20 includes a fabric section 21. A two sided adhesive tape 24 is applied to the back face of the fabric section and trimmed to complement the shape of the fabric section. The fabric section is shown in the drawing to be oval-shaped, however, it should be clear to one skilled in the art that the geometry of the fabric section may take any form without departing from the teachings of the present invention.

The adhesive tape may be selected from any one of a number of commercially available products presently on the market. It has been found that a two sided tape marketed by Minnesota Metal and Mining Company under the product number 950 provides excellent bonding properties when applied to fabrics. This particular tape continues to maintain its bond strength even after the fabric has been subjected to a number of wash cycles in an automatic washing machine.

The exposed face of the adhesive tape is applied to a release sheet 25 from which the tape can be easily removed from the sheet without degrading the adhesive bonding properties of the tape. The release sheet is preferably formed of a paper substrate that is coated with a suitable release material, the reason for which will be apparent from the disclosure below.

A conventional button 30, as for example a four hole, 3/8 inch diameter dress shirt button, is centered upon the front face of the fabric section and the button is sewn to both the fabric section and the backing sheet using standard button stitching by means of an automatic sewing machine. As in the case of a permanent button, the threads 32 at the button holes are smooth and unbroken while the threads are tied off at the back of the releasable backing strip. This enhances the ability of the button unit to remain secured to the backing strip during handling and shipping and further provides for ease of manufacture.

To apply a replacement button unit 20 to a garment such as the dress shirt 35 illustrated in FIG. 3, the button unit is simply torn from the backing strip and the backing strip then peeled from the adhesive tape to expose the back of the tape. During the peeling operation the backing strip is easily torn away from the stitching. The exposed adhesive side of the button unit is then applied to the garment with the button being positioned over the site of a missing button. The size and shape of the fabric section allows the section to be positioned substantially beneath that portion of the garment containing the mating button hole. The replacement button is passed through the button hole to complete the closure of the garment. Preferably, the fabric section is formed of the same or similar material as the garment with the fabric section matching the pattern and color of the garment.

FIG. 5 involves a further embodiment of the invention wherein the garment 40 is a throw away piece of apparel which during the course of use will become contaminated and thus have to be discarded. In this embodiment, the fabric section of the unit is a long continuous strip 51 that has sewn thereon a series of vertically aligned buttons 52 that are spaced apart at desired intervals. The back of the sheet is provided with a two-sided adhesive tape along its entire length to which is applied a release backing sheet as described above. Here again, the buttons are sewn through both the fabric sections and the backing sheet.

The spacing of the buttons upon the strip 51 is equal to the spacing of the button holes 55--55 formed in the garment. In assembly, the backing sheet is peeled from the adhesive tape and the fabric section applied to the garment along the edge of the closure region with the buttons in registration with the button holes. As can be seen, the button unit of the present invention provides an inexpensive means for attaching buttons to a throw away garment which can be quickly and easily applied to the garment thereby realizing a further savings by eliminating a number of manufacturing steps.

While this invention has been explained with reference to the structure disclosed herein,

It is not confined to the details set forth and this invention is intended to cover any modifications and changes as may come within the scope of the following claims:

United States Patent

Thomas

7,191,720

March 20, 2007

Method of manufacture for stitchless garment

Abstract

A stitchless garment and a method of making the stitchless garment are provided. The method is used in connection with manufacturing a circular knit garment using a first garment component and a second garment component. The method includes the steps of providing the first garment component and providing the second garment component so that the second garment component overlaps the first garment component to define a connection. A bonding tape is provided at the connection. Heat is applied to the first garment component and the second garment component. The method also includes the step of applying pressure to the bonding tape to adhere the first garment component to the second garment component to provide a stitchless garment.

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Assignee: HBI Branded Apparel Enterprises, LLC (Winston-Salem, NC)

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Current International Class: D05B 23/00 (20060101); D05B 17/00 (20060101)

Field of Search: 112/475.09 2/274,275,269,46,227,69,73 156/88,91
428/192,193,194,57,111 28/153,155 24/432 66/172E

References Cited [Referenced By]

U.S. Patent Documents

<u>1935612</u>	November 1933	Brady
<u>2264224</u>	November 1941	Swan
<u>2435509</u>	February 1948	Pfeffer, Jr., et al.
<u>3026225</u>	March 1962	Ostby, Jr.
<u>3168749</u>	February 1965	Cala
<u>3333280</u>	August 1967	Hynek et al.
<u>3823445</u>	July 1974	Rivers

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<u>3873403</u>	March 1975	Edelman
<u>3874963</u>	April 1975	Barger
<u>4372998</u>	February 1983	Shimada
<u>4506615</u>	March 1985	Bachtiger
<u>4508582</u>	April 1985	Fink
<u>4604152</u>	August 1986	Liukko
<u>4670908</u>	June 1987	Albert
<u>4793034</u>	December 1988	Poloff et al.
<u>5003902</u>	April 1991	Benstock et al.
<u>5568779</u>	October 1996	Wong
<u>5586339</u>	December 1996	Lathan
<u>5590615</u>	January 1997	Wong
<u>5713292</u>	February 1998	Wong
<u>5775394</u>	July 1998	Wong
<u>5782191</u>	July 1998	Wong
<u>5950554</u>	September 1999	Wong
<u>6070542</u>	June 2000	Wong
<u>6079343</u>	June 2000	Wong
<u>6105171</u>	August 2000	Niedermeyer
<u>6192521</u>	February 2001	Alberts et al.
<u>6240563</u>	June 2001	Niedermeyer
<u>6286144</u>	September 2001	Henderson et al.
<u>6287168</u>	September 2001	Rabinowicz
<u>6471803</u>	October 2002	Pelland et al.
<u>6622312</u>	September 2003	Rabinowicz
<u>6797352</u>	September 2004	Fowler
<u>6817034</u>	November 2004	Smilovic

Foreign Patent Documents

3540022

May., 1987

DE

Other References

Bemis, "Sewfree: Adhesive Film for Seamless Apparel Construction",
Sewfree.com. cited by other.

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71
72

Primary Examiner: Izaguirre, Ismael
Attorney, Agent or Firm: Ohlandt, Greeley, Ruggiero & Perle, L.L.P.

Claims

What is claimed is:

1. A method of seamlessly manufacturing a circular knit garment between a first garment component and a second garment component comprising the steps of: laying the second garment component over a portion of the first garment component to define a connection; providing a bonding tape at said connection; heating the first and the second garment components; applying heat and pressure to said bonding tape to adhere the first garment component to the second garment component to provide a stitchless garment, wherein said bonding tape has an elastic component, and wherein said bonding tape has at least two layers of adhesive with each positioned on a different side of said elastic component.
2. The method of claim 1, wherein said at least two layers of adhesive is made of a thermal adhesive.
3. The method of claim 1, wherein said elastic component is made of a polyurethane.
4. The method of claim 1, wherein said bonding tape further comprises an elastic component disposed between at least two adhesive layers, said elastic component being selected from the group consisting of a polyurethane, nylon, spandex, and any combinations thereof.
5. The method of claim 4, wherein said at least two adhesive layers is selected from the group consisting of a polyurethane, polyamide, olefin, ethylene vinyl acetate, and any combinations thereof.
6. The method of claim 1, wherein the step of applying heat and pressure is accomplished by ironing.
7. The method of claim 1, wherein the first garment component and the second garment component are made of a material selected from the group consisting of a textured nylon, a nylon, a spandex, polyester, and any combinations thereof.
8. A method of manufacturing a stitchless article comprising: circular knitting a first series of courses to form a first tubular structure having opposite lateral sides each with armhole; circular knitting a second series of courses to form a second structure; feeding a bonding tape between said first and second structures; heating said bonding tape to adhere said first and second structures together to form the stitchless article.

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9. The method of claim 8, wherein said first tubular structure has a first edge and a second edge, wherein the method further comprises the steps of feeding said bonding tape between said first edge and said second edge on opposite sides of a neck hole of said second structure, and heating said first edge, said second edge and said bonding tape such that said bonding tape adheres said first edge and said second edge together to form said neck hole of said second structure.

10. The method of claim 8, wherein the step of heating said bonding tape is performed by a heated foot and a heated plate disposed on opposite sides of said bonding tape.

11. The method of claim 10, wherein said second structure is a torso-encircling garment.

12. The method of claim 10, wherein said bonding tape has at least two layers of adhesive with each positioned on a different side of said elastic component.

13. A garment comprising: a first garment component; a second garment component; a bonding tape having an intermediate layer and at least two layers of adhesive, with each adhesive layer disposed on a different side of said intermediate layer, said bonding tape being disposed between said first garment component and said second garment component, wherein said first garment component is joined to said second garment component by heating said one or more layers of adhesive so that neither of said first and second garment components have a fold where joined together.

14. The garment of claim 13, wherein said at least two layers of adhesive is made of a thermal adhesive.

15. The garment of claim 14, wherein said at least two adhesive layers are selected from a material selected from the group consisting of a polyurethane, polyamide, olefin, ethylene vinyl acetate, and any combinations thereof.

16. A garment comprising: a first garment component; a second garment component; a bonding tape having an intermediate layer and at least two layers of adhesive, with each adhesive layer disposed on a different side of said intermediate layer, said bonding tape being disposed between said first garment component and said second garment component, wherein said first garment component is joined to said second garment component by heating said one or more layers of adhesive so that said first and second garment components do not have a fold where joined together, wherein said intermediate layer has an elastic component.

17. The garment of claim 16, wherein said elastic component is made of polyurethane.

18. The garment of claim 16, wherein said elastic component is a material selected from the group consisting of a polyurethane, nylon, spandex, and any combinations thereof.

Description

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a stitchless garment and a method of manufacture of the same. More particularly, the present invention relates to a method of manufacturing a circular knit garment that eliminates a stitching operation where two garment components are fastened or joined to one another.

2. Description of the Prior Art

Traditionally, general every day wearable garments are manufactured using cut-and-sew sections of fabric. The fabric is connected to one another to form a completed clothing article by stitching. The garment or article of clothing is joined or fastened together in the prior art by a threaded needle. The threaded needle arranges an array of threads in sewing, knitting, crocheting or any other suitable manner between predetermined garment components. The predetermined garment components are tightly fastened or joined to one another by these stitches.

In the area of seamless circular knitting technology, garments are produced in a substantially seamless manner. However, there still remains several operations where stitching is required in order to complete the finished article for sale. These stitching operations are laborious and costly and detract from the typically highly productive seamless circular knit manufacturing process.

Seamless circular knitting articles are usually hosiery, lingerie and innerwear. Garments that are circular knit typically lack a physical support structure relative to prior art articles of clothing. This lack of support structure allows for a user to more comfortably move in the seamless article of clothing. However, although the lack of support structure aids in a more comfortable clothing article, any stitching may tend to make the clothing article uncomfortable.

Stitching, although useful in certain circumstances, typically may have unintended and detrimental consequences with seamless circular knit articles. Stitching may cause the inner surface of the garment to become uncomfortable when contacting the skin and body tissues of the user. Stitches that are in contact with the user's skin in active wear and in support type garments may lead to inflammation, irritation bruises and chafes. Inflammation, irritation bruises and chafes may occur at the point of contact of the skin with the seam, or the similar line, ridge, or groove made by fitting, joining, or lapping together two garment components along their edges.

Typically, seams with stitches are rough and compress skin and body tissues. Also, stitches generally are made of a fabric or a material that has a different modulus of elasticity than the remainder of the garment. In addition, seams with stitches may have

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different stretch properties that cause the seams, unlike the remainder of the garment to restrict athletic movement. In particular, while a front panel and a rear panel of an article of clothing may move and be flexible to movement, the stitch and the seam may resist or otherwise restrict that movement causing the article of clothing to be uncomfortable.

This is especially prevalent in the instance where there exists an enlarged surface area of the seams. The attendant friction resulting between the interaction of the stitches on the seams and the user's skin and body tissues between the inner surface of the garment and the skin of the user results in a detrimental restrictive experience for the user. In the instance of manufacturing a considerable number of articles of clothing, stitching may increase the overall manufacturing costs of the garment and increase the time, and labor costs of manufacturing an individual article of clothing.

What is desired in the art is a method of attaching a first garment component and a second garment component to one another by an adhesive. Several methods of adhering a predetermined garment component to another garment component have been disclosed in the art. For instance, U.S. Pat. No. 5,590,615 to Wong discloses a pucker free garment seam. Wong teaches a method of providing a bonding element and at least a thermally adhesive component. The bonding element is placed along a seam. The seam is formed by positioning a first garment component and the second garment component such that the lower surface of the bonding element contacts the seam at an upper surface of the first garment component. A first set stitch is placed along a side of the seam and then the first garment component is folded over the bonding element to glue and stitch the garment components together and create a pucker free seam.

Although, Wong introduces a bonding element and thermal adhesive, the bonding does not obviate the necessity of stitching the garment. Undoubtedly the garment will remain uncomfortable at the point of contact between the user's body tissues and the set stitch. The stitching will undeniably contact the skin of the user. When engaging in activities, the stitches placed along the side of the seam may cause inflammation, irritation, bruises and chafes at the point of contact of the seams, especially in the instance of active wear and seamless garments.

A flexible article made from a garment having a certain predetermined modulus of elasticity and stretchiness will be reduced to a relatively stiffer garment by adhering, folding over and stitching the respective garment components together. Wong teaches that adhering, folding over and stitching all will undoubtedly reduce or diminish the overall stretchiness of the garment. By placing an adhesive component between any first and second garment components, the overall elasticity of the completed article is reduced. By reverse folding a garment component over the adhesive elasticity is again further reduced.

The prior art is lacking an effective method for fastening a first garment component and a second garment component together using a bonding element that does not reduce the amount of elasticity of the garment. By utilizing an improved seaming method, rather than using uncomfortable seams, improved comfort characteristics and flexibility

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characteristics can be achieved, while maintaining the necessary structure to allow the user to wear an improved garment with suitable support for engaging in athletic activities.

Thus, it is desirable to provide a method of seaming that has an improved functionality having an elastic adhesive bonding element that enables the manufacturer to more precisely and productively produce an elastic, comfortable and non-irritating garment in a cost effective manner.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a garment that is manufactured without stitching.

It is another object of the present invention to provide a garment that is circular knit having a first seamless garment component and a second seamless garment component that are connected by a bonding tape.

It is yet another object of the present invention to provide a garment for active wear that does not have stitches to irritate or chafe the user's skin.

It is still another object of the present invention to provide a garment that has a seaming method that allows for flexibility between the first garment component, the second garment component and a bonding tape.

It is a further object of the present invention to provide a garment having bonding tape that is elastic.

These and other objects and advantages of the present invention are achieved by providing a seamless garment made from at least a first garment component and a second garment component, where each component may be a circular knit garment component. The second garment component overlaps the first garment component to define a connection. A bonding tape is disposed at the connection, and thus between the first and second garment component. An upper surface of the bonding tape contacts a lower surface of the first garment component, and a lower surface of the bonding tape contacts an upper surface of the second garment component. In addition, the upper surface of the first garment component is heated, preferably by a heated foot, and the lower surface of the second garment component is also heated, preferably by a heated plate. Pressure is applied to the bonding element to adhere the first garment component to the second garment component to provide a garment without stitching.

DESCRIPTION OF THE DRAWINGS

The above and other objects, advantages and benefits of the present invention will be understood by reference to the detailed description provided below and the accompanying drawings.

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FIG. 1 is a perspective view of an improved seaming method of the present invention.

FIG. 2 is a cross-sectional view of an article of clothing using the improved seaming method of FIG. 1.

DETAILED DESCRIPTION OF THE INVENTION

Referring to the drawings and in particular FIG. 1, there is provided a substantially stitchless garment in accordance with a preferred embodiment of the present invention generally represented by reference numeral 10. The garment 10 has a first garment component 12, a second garment component 14 and a bonding component or bonding tape 16 adapted to be positioned between the first and the second garment components.

Although the specific embodiment shown is directed to a seam for an armhole of a shirt to a sleeve, the method for stitchlessly attaching a sleeve to a shirt of the present invention may be used for a variety of seams in a variety of garments. For example, the method can be used to create seams in a center placket, collar, cuff, front panel, yoke, rear panel, shirt sleeve, bra, breast cup, gusset panel, strap, center gore, as well as various seams of a short, dress, night gown and/or trouser.

The first garment component 12 and second garment component 14 have a seamless structure, that is more preferably a knit structure, that makes the first garment component and the second garment component resiliently stretchable in both the vertical and horizontal direction.

The first garment component 12 and second garment component 14 can be knit, for example, from various types of face yarns or back yarns depending on the desired properties of the fabric, and the face or back yarns can be various deniers. The fabric for first garment component 12 and second garment component 14 may be selected from desired characteristics of the fabric such as the hand appearance, texture and activities that the finished product is intended to be used in. The desired fabrics include, but are not limited to, nylon, textured nylon, spandex or elastomeric, polyester, or any combinations thereof. In a preferred embodiment of the present invention, the first and second garment components 12, 14 may be a combination of elastomeric and a textured nylon to impart resiliency to the finished product.

An integral part of the present invention is that the connection between first garment component 12 and second garment component 14 is performed by bonding tape 16. The bonding tape 16 is positioned between first garment component 12 and second garment component 14 with no folding of either component. The resultant structure that uses bonding tape 16 in this manner provides a simple, cost effective, and perhaps less bulky structure as compared to conventional stitching. The bonding tape 16 preferably also acts to secure a knit edge and keeps first garment component 12 and second garment component 14 from raveling.

In a preferred embodiment of the present invention, bonding tape 16 may have an

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elasticity that is substantially similar to an elasticity property of first garment component 12 and second garment components 14 in order to maintain the overall elasticity and resiliency of the finished article. Bonding tape 16 may also be transparent, clear or semi-transparent, and is applied subsequent to any dyeing or staining of the first garment component 12, the second garment component 14, or any combinations thereof.

In a preferred embodiment of the present invention, the bonding tape 16 may be formed as a one, two, three or any number of suitable layer construction to maintain overall comfort and overall elasticity of the bonding tape while having an adhesive thereon. In the three layer embodiment of bonding tape 16, the bonding tape preferably includes an elastic component 50 sandwiched between a first adhesive layer 52 and a second adhesive layer 54. The first and second adhesive layers 52, 54 are integral with or applied to elastic component 50. This embodiment of bonding tape 16 has an overall diminutive width so as not to cause friction during for example, jogging, running or during active wear.

The elastic component 50 may be a urethane, spandex, nylon or any other suitable elastomeric material that will stretch with first garment component 12 and second garment component 14. Preferably, the elastic component 50 is a urethane.

The first adhesive layer 52 and second adhesive layer 54 can be made of any suitable adhesive material, preferably a thermoplastic adhesive that has a resistance to heat so as not to separate during laundering, but will adhere, even during laundering, first garment component 12 to second garment component 14. Such suitable adhesive materials may be polyurethane, polyamide, olefin, ethylene vinyl acetate, or any combinations thereof. Preferably, the first adhesive layer 52 and the second adhesive layer 54 are polyurethane.

Preferably, bonding tape 16 that includes elastic component 50 and first and second adhesive layers 52, 54, is a single tape. Such a single tape may be of the type commercially sold by Bemis Associates UK.RTM. or Bemis Manufacturing Company located in Shirley, Mass. under the designations 3410. This tape is primarily a polyurethane tape. It has a modulus in the range of about 54 gms to about 66 gms, preferably about 60 gms (0.13 lbs.) This bonding tape 16 has a softening point of about 120 degrees Celsius (248 degrees Fahrenheit).

Preferably, bonding tape 16 may be wound on a reel for use in a seaming or modified sewing machine. Once wound on a reel, bonding tape 16 may be fed by the seaming machine between first and second garment components 12, 14 such that top surface 40 of bonding tape 16 contacts bottom surface 22 of first component 12. Also, bottom surface 42 of bonding tape 16 contacts top surface 30 of second garment component 14. Thereafter, upper surface 20 of first garment component 12 is heated, preferably by a heated plate (not shown), and lower surface 32 of second garment component 14 is heated, preferably by a heated foot (not shown).

The heated plate and the heated foot raise the temperature of bonding tape 16, and in particular first adhesive layer 52 and second adhesive layer 54, while not damaging

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elastic component 50 and not diminishing the elasticity of the elastic component. The heated foot is placed on an outer surface of first garment component 12. The heated foot heats, preferably the outer surface of first garment component 12, thereby heating bonding tape 16 to bond first garment component 12 to second garment component 14. In this manner, bonding tape 16 adheres first garment component 12 to second garment component 14. Thus, first garment component 12 can be a shirt sleeve, and second garment component 14 can be a torso-encircling portion of a garment so that bonding tape 16 will adhere the shirt sleeve to the torso-encircling portion of the garment.

In a preferred embodiment, a heated foot is disposed on the opposite side of a heated plate. The heated plate heats an inner surface of second garment component 14 and acts to press first garment component 12 and second garment component together. In another preferred embodiment of the present invention, pressure is preferably applied to move first adhesive layer 52 and the second adhesive layer 54 into the surface of the desired knit material. Pressure is applied on opposite sides of first garment component 12, second garment component 14 for adhering the respective portions of garment 100 together.

During heating, first adhesive layer 52 and second adhesive layer 54 flow into first and second garment components 12, 14. Thus, an advantageously strong fastening is created between first garment component 12 and second garment component 14, yet the fastening is achieved with a relatively diminutive width. Accordingly, the garment is more comfortable to the user. Also, bonding tape 16 is substantially unnoticeable to the user during wear. The bonding tape 16 preferably also acts to limit or otherwise minimize any unraveling of the first garment component 12, the second garment component 14, or any combinations thereof.

Referring to again to FIG. 2, a clothing article or garment 100 having an armhole seam is shown. The article 100 may be a seamless shirt, preferably a circular knit seamless shirt, having a torso-encircling portion 105 with a first armhole 110, and a first sleeve 120. The first sleeve 120 and torso-encircling portion 105 are placed to form a connection at the first armhole 110. This connection defines a first seam 200. The bonding tape 16 is provided at the first seam 200, and is properly aligned, preferably by feeding the bonding tape into a first seam 200, preferably by a seaming machine. Thereafter, the pressing operation is conducted using the heated foot and heated plate, discussed above. The first sleeve 120 and torso-encircling portion 105 are heated. Heat and pressure are applied to first seam 200 to adhere torso-encircling portion 105 to sleeve 120.

It should be understood that the foregoing description is only illustrative of the present invention. Various alternatives and modifications can be devised by those skilled in the art without departing from the present invention. Accordingly, the present invention is intended to embrace all such alternatives, modifications and variances.

La tecnología entiende los
sueños de la mujer

Extrema comodidad
comfort & diseño

• Sin costuras

• Sin elásticos

• No se sienten

• No se marcan

Precios
a tu alcance

Pon a prueba la perfección

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News

BEMIS LAUNCHED IN EUROPE its new *Sewfree* polyurethane film designed specifically for the production of bodywear items that call for stretch and recovery allied to comfort. The launch took place at the S.I.L. in Paris last January, where the complete process was demonstrated on the Bemis stand. Use of *Sewfree* eliminates most of the sewing in bra production without any negative effects since the film offers excellent washability and is non-yellowing while providing stretch and comfort for the wearer. *Sewfree* is available in several gauges to achieve desired fabric characteristics. Bemis also produces a broad range of thermoplastic adhesives, custom films and coatings for a variety of apparel production processes.



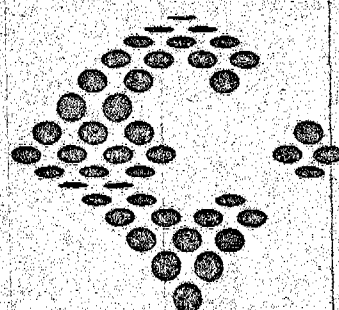
Sewfree by Bemis (USA/UK)



Sewfree by Bemis (USA/UK)

SWISS TULLE SPECIALIST CHANGES NAME and logo. Having produced since 1913 a range of tulle fabrics that has become famous throughout the world for quality, Schweizerische Gesellschaft für Tüllindustrie AG is adopting a new name and logo as from the end of August. The change will be announced officially at the Lyon, mode city salon. The new name **swisstulle** will ease communications throughout the world while the distinctive new logo conveys most effectively the dynamic character of the product and the creativeness of its manufacturer. The British subsidiary, a separate profit centre which formerly traded as Swiss Net(UK) plc, also changes its name, to **swisstulle UK**.

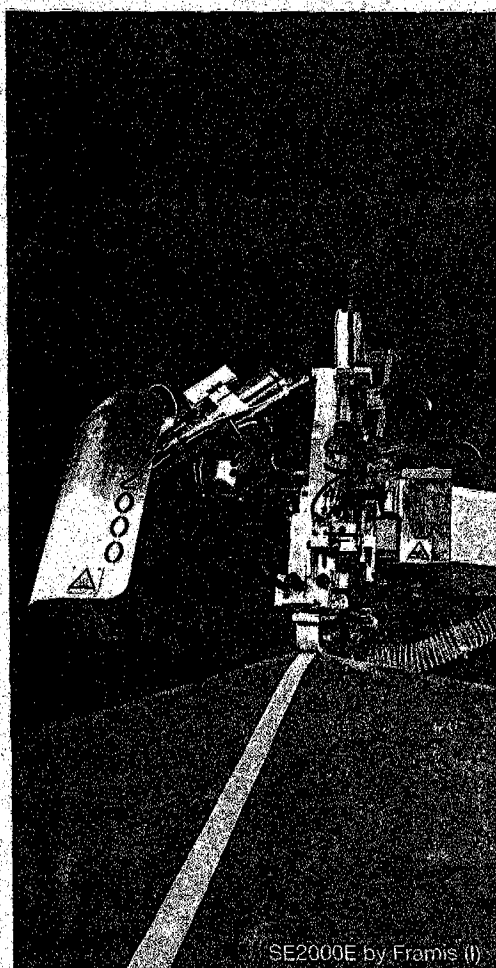
swisstulle



BEMIS INTRODUCES A NEW VERSION of the SE 2000 thermowelding machine. Designated *SE 2000E*, the machine represents the most advanced technology in this sector. It is equipped with microprocessors that control and manage all functions, including memorising entire cycles of operations according to product type and tape and recalling specific cycles on demand. The machine also features an autodiagnosis display, and it is equipped with sensors that regulate air supply and temperature according to ambient conditions, thereby economising energy. Many other special features contribute to ease and speed of operation.

GOSSARD TAKES UP THE FASHION for limited editions. The British lingerie manufacturer launched its *Cancan* design inspired by the Paris scene as described in Zola's novels. The period version of Gossard's high-tech bra will reach retail outlets in October this year.

NOYON OPENS ITS NEW WEB SITE that has been totally remodelled and offers many new features, such as video reports, news pages and designs. The interactive site - www.noyon-dentelle.com - includes a showroom as well as a virtual fashion show that presents the latest collection. Other features include information on the history and technique of Leavers lace production. Later, it will include a space for industry specialists offering trade and trend information.



SE2000E by Framis (I)



Ultrabra "cancan" by Gossard (GB)

01/2002

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News

production facilities. The combined business, that trades as **Berne-Welbeck International Ltd.**, is now the premier British source of both warp and weft knitted fabrics. The new organisation also provides a springboard from which Berne-Welbeck can develop international manufacturing capacity to meet changing customer needs.

The ranges of the two partners are largely complementary, promising customers a more comprehensive range of fabrics with which to develop their collections.

ITALIAN SILK PROCESSORS ADOPT NEW LOGO and develop a cooperative promotion plan. The new logo - **Seri.co** - will be licensed to some 1'000 companies in the Como region. It guarantees that the fabrics that carry it conform to rigorous technical specifications, that they involve at least two significant operations completed in Italy and that the producing or marketing companies respect clearly defined guidelines relating to ethics, social standards and ecology.

Among the companies eligible for licensing are many Italian knitters and most printers of swimwear fabrics.

LITTLE KISS RECEIVES ANNUAL AWARD given by the *Trade Leaders' Club* to recompense companies that regularly improve the quality of their products or services. The *Golden Europe Award for Quality 2001* was presented to Mr. **Juan Vicente Llorens**, founder of Little Kiss, in Paris by Mr. Royer, France's Minister for Education.

The company well deserves the award since it was one of the first in Spain to start winning substantial market share in export markets when the country's trade was liberalised.

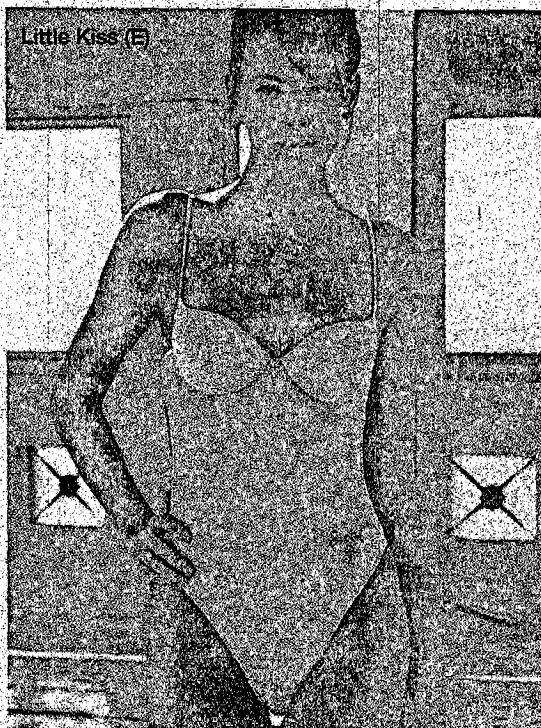
FENWAY GROUP ACQUIRES LEADING PRODUCERS of laces and embroideries in France from **Sara Lee Corporation**. The Dutch holding company now owns **Desseilles** and **Broderies Deschamps**, that are being managed by M. **Jean Malraux** following the departure of M. *Patrick François*.

The deal also includes the purchase of **Galler Penn Sedespa** in Spain and **Galler Portuguesa Texteis** in Portugal, that produce lace and stretch knitted fabrics. The aggregate annual sales of all the companies acquired amount to € 70m but the terms of the purchase were not revealed.

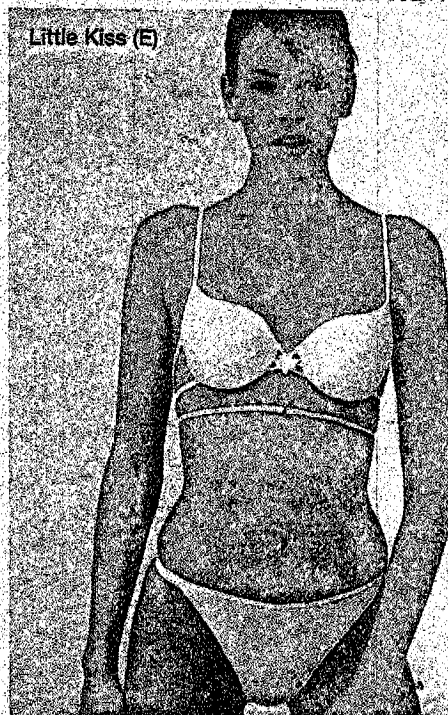
The acquisition marks Fenway's first diversification into the textile sector.

BEMIS LAUNCHES ITS SEWFREE FILM in Europe. The American company showed at the Lyon Interfilère its **Sewfree™** adhesive polyurethane film with excellent stretch and recovery performance that can be used to eliminate needlework on seamless garments.

Appropriate use of the film can help to reduce production costs substantially.



M. Jean Malraux



 Industria y Comercio SUPERINTENDENCIA	PLANILLA DE RADICACIÓN - DIGITALIZACIÓN DIARIA RELACIÓN DE ANEXOS		
Dependencia: Propiedad Industrial.	Fecha: 2021 / 12 / 12 AAAA MM DD		Recorrido:
Tipo de Radicación: Entrada: ☐ Salida: ☐ Traslado: ☐ Convenio: ☐			
Radicador:			Planilla:

ID	No. Radicación	Consecutivo	Item
1	112297	83	16
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Item	Unidad de Conservación
1	Bolsa
2	Caja
3	Libro
4	Sobre
5	Torné
6	Otro
Item	Soporte Documental
7	CD
8	Disquete
9	DVD
10	Folleto
11	Foto
12	Periódico
13	Plano
14	Publicación Periódica
15	USB
16	Otro

Observaciones:

Muestras de telas azul claro, blanco y rojo



FACTURA DE VENTA 85

CRA 52 # 31-39 Medellin-Colombia
PBX 574 2350871 TEL 574 3221920
WALTER DE JESUS RUIZ O.
NIT 15527349-2

REGIMEN COMUN PARA EFECTOS DEL IVA NO SOMOS GRANDES CONTRIBUYENTES	FECHA 24/04/2006	FACTURA # 0959
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FACTURADO A INSCRA S.A SRA: CLAUDIA SANTAMARIA CRA 43 A #61 SUR - 152 int.189 TEL. 4489988 SABANETA, COLOMBIA
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ENVIADO A INSCRA S.A SRA MARIA CECILIA PALACIO CRA 43A #61 SUR - 152 INTERIOR 189 SABANETA, COLOMBIA

NIT	FORMA DE PAGO	FECHA DE ENVIO	VENCIMIENTO	VEND	TRANSPORTA..
811037864-9	CONTADO	24/04/2006	24/04/2006	WR	MENSAJERO

ITEM	DESCRIPCION	CANTIDAD	PRECIO	TOTAL
POF4614	ADHESIVO DE POLIOLEFINA TIPO WEB, TEMPERATURA DE ACTIVACION 105 °C. SE PUEDE USAR EN ESPUMAS DE POLIURETANO, EVA, NEOPRENOS, ANCHO 150 cms. PRECIO POR METRO LINEAL	20	3.303,00	66.060,00

INCOTERMS	LOCAL	CUENTA CORRIENTE BANCOLOMBIA 021 2093188-5 WALTER RUIZ/CI TESCO	SUBTOTAL	\$66.060,00
RESOLUCION DIAN #110000265977 2006/12/28 FACTURA POR COMPUTADOR AUTORIZADA DEL 0001 AL 5000	Esta factura venta, se asimila en sus efectos a una letra de cambio. Artículo 774 del código de comercio. Esta factura causara intereses por mora del 2 % mensual o proporcional despues de la fecha de vencimiento. Autorizzamos expresamente ser reportado a las centrales de riesgo en caso de incumplimiento de las obligaciones		IVA (16,0%)	\$10.569,60
TOTAL			\$76.629,60	

FACTURA IMPRESA POR COMPUTADOR CON EL SOFTWARE QUICK BOOKS-PRO 2007, DE LA EMPRESA INTUIT, 18883207276

 Industria y Comercio SUPERINTENDENCIA		PLANILLA DE RADICACIÓN - DIGITALIZACIÓN DIARIA RELACIÓN DE ANEXOS	
Dependencia: Prohidad industrial.		Fecha: <u>2007</u> / <u>12</u> / <u>12</u> AAAA MM DD	
Tipo de Radicación: Entrada: ☐ Salida: ☐ Traslado: ☒ Convenio: ☐		Recorrido:	
Radicator:		Planilla:	

ID	No. Radicación	Consecutivo	Item
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11	Foto
12	Periódico
13	Plano
14	Publicación Periódica
15	USB
16	Otro

Observaciones: Revista hay 3 revistas de color azul y titulo Naranja.
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