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BRAIDING; LACE-MAKING; KNITTING; TRIMMINGS; NON-WOVEN FABRICS

Flechten; Herstellen von Spitzen; Stricken; Posamenten; nichtgewebte Stoffe

A KNITTED COMPONENT FOR AN ARTICLE OF FOOTWEAR INCLUDING A FULL MONOFILAMENT UPPER

An article of footwear (100) including a full monofilament upper (120) is described. The full monofilament upper (120) incorporates a knitted component (130) including a monofilament knit element (131). The monofilament knit element (131) is formed by knitting with a monofilament strand. The monofilament knit element (131) is formed of unitary knit construction with the remaining portions of the knitted component (130), including peripheral portions that are knit using a natural or synthetic twisted fiber yam. An inlaid tensile element (132) can extend through the knitted component, including portions of the monofilament knit element. The monofilament knit element (131) may be knitted with a monofilament strand according to a variety of knit structures.

Publication: [WO 2015116293 A1 20150806](#)

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Prio: US 20140203 14/170,947

Appl.No: US2014065131

IPC: D04B 1/22 2006.01 (IA)

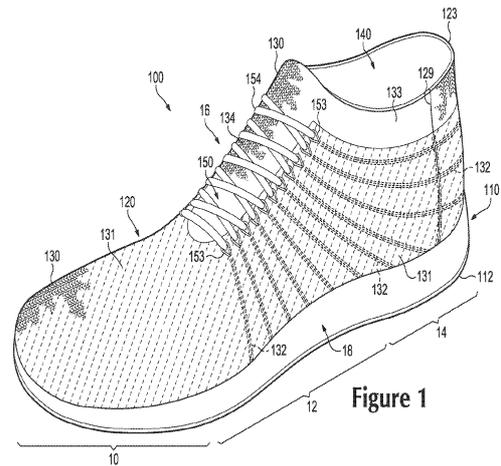


Figure 1

METHOD OF KNITTING A GUSSETED TONGUE FOR A KNITTED COMPONENT AND KNITTED COMPONENT

A knitted component including a knit element and a gusseted tongue is incorporated into an upper of an article of footwear. The knit element defines a portion of an exterior surface of the upper and an opposite interior surface of the upper, with the interior surface defining a void for receiving a foot. The knit element and the gusseted tongue are formed together as a knitted component during a knitting process as a one-piece element. The gusseted tongue is formed of unitary knit construction with the knit element and is joined with the knit element in an instep area of the upper. The knitting process includes steps of forming portions of the knitted component, transferring portions of the knitted component to opposite needle beds, shifting needle beds along a lateral direction to cause portions to overlap, and joining the overlapped portions by knitting to form the gusseted tongue.

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Prio: US 20140203 14/170,822

Appl.No: US2014065134

IPC: D04B 1/22 2006.01 (IA)

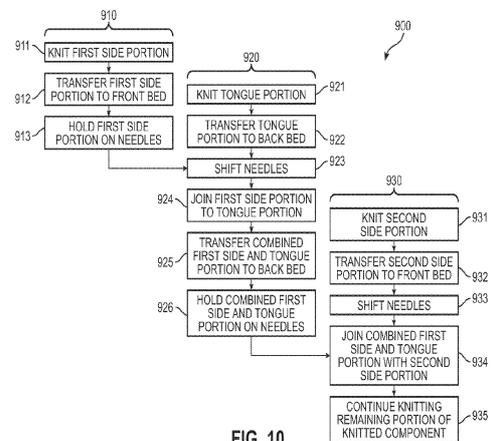


FIG. 10

AN ARTICLE OF FOOTWEAR INCLUDING A MONOFILAMENT KNIT ELEMENT WITH PERIPHERAL KNIT PORTIONS

An article of footwear (100) including a knitted component (130) having a monofilament knit element (131) with peripheral knit portions is described. The knitted component (130) includes a monofilament knit element (131) formed by knitting with a monofilament strand. The monofilament knit element (131) is formed of unitary knit construction with the remaining portions of the knitted component (130), including peripheral portions that are knit using a natural or synthetic twisted fiber yarn. An inlaid tensile element (132) can extend through the knitted component (130), including portions of the monofilament knit element (131). The monofilament knit element (131) may be knitted with a monofilament strand according to a variety of knit structures.

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Prio: US 20140203 14/170,978

Appl.No: US2014065140

IPC: D04B 1/22 2006.01 (IA)

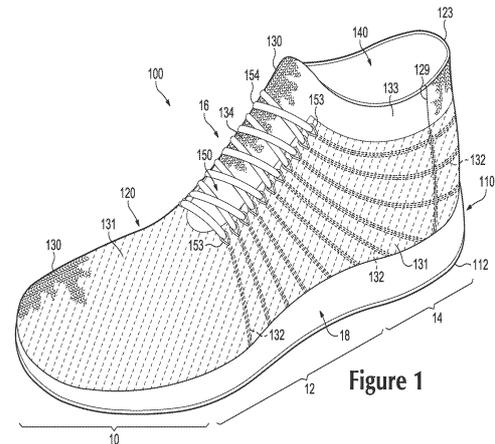


Figure 1

AN ARTICLE OF FOOTWEAR INCLUDING A MONOFILAMENT KNIT ELEMENT WITH A FUSIBLE STRAND AND METHOD OF MAKING SAME

An article of footwear including a full monofilament upper is described. The full monofilament upper incorporates a knitted component including a monofilament knit element. The monofilament knit element is formed by knitting with a monofilament strand. The monofilament knit element is formed of unitary knit construction with the remaining portions of the knitted component, including peripheral portions that are knit using a natural or synthetic twisted fiber yarn. An inlaid tensile element can extend through the knitted component, including portions of the monofilament knit element. The monofilament knit element may be knitted with a monofilament strand according to a variety of knit structures. A fusible strand may be knit with the monofilament knit element. Upon heating, the fusible strand can combine and surround the monofilament strand within the monofilament knit element.

Publication: [WO 2015116296 A1 20150806](#)

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Prio: US 20140203 14/170,913

Appl.No: US2014065143

IPC: D04B 1/16 2006.01 (IA)

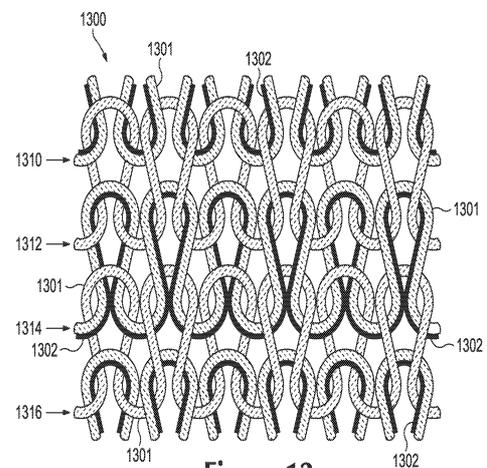


Figure 13

AN ABSORBENT SANITARY PAPER PRODUCT

An absorbent sanitary paper product having a machine direction, a cross-machine direction orthogonal and co-planar thereto, and a Z-direction orthogonal to both the machine- and cross-machine directions is disclosed. The absorbent sanitary paper product has a first network of fibers having a basis weight of less than about 95 g/m² and a second network of fibers comprising individual fibers adhesively attached with an adhesive thereto. Each fiber of the first network of fibers has a longitudinal axis generally disposed within the plane comprising the machine and cross-machine directions. Each individual fiber of the second network of fibers has a longitudinal axis having a component thereof generally disposed in the Z-direction.

Publication: [WO 2015116366 A1 20150806](#)

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Prio: US 20140130 14/168,596

Appl.No: US2015010947

IPC: D04H 1/70 2012.01 (IA)

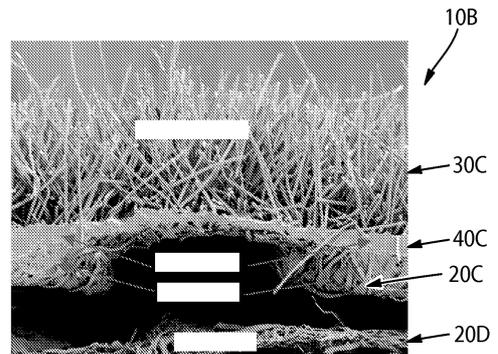


Fig. 6

A HIGH LOFT, NONWOVEN WEB EXHIBITING EXCELLENT RECOVERY

A high loft, nonwoven web exhibiting excellent recovery.

Publication: [WO 2015116766 A1 20150806](#)

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Prio: US 20140129 14/167,366

Appl.No: US2015013429

IPC: D04H 3/02 2006.01 (IA)

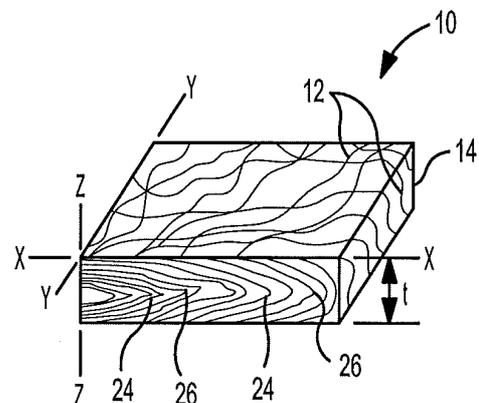


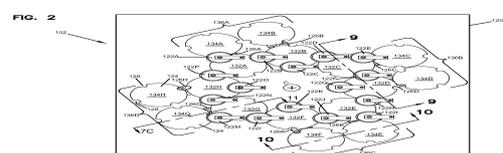
FIG. 1

SURGICAL BRAIDS

Apparatuses and methods for making surgical braids, the apparatuses and methods having active and passive tracks. Additionally, various embodiments of surgical braids having changing patterns of traces, alternating colors, alternating cores, and tubular and flat sections, and combinations thereof.

Publication: [WO 2015117148 A1 20150806](#)

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Prio: US 20140808 14/455,769, US 20140203 61/935,244, US 20140728 62/029,951, US 20141230 62/097,847
Appl.No: US2015014307
IPC: D04C 3/00 2006.01 (IA)

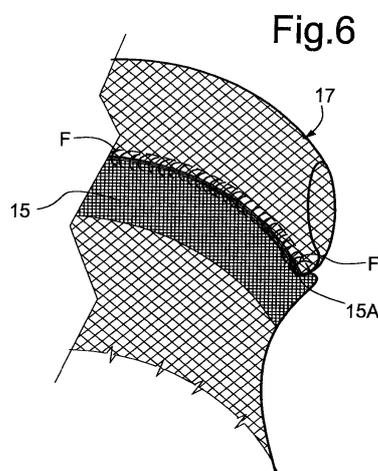
METHOD FOR THE PRODUCTION OF A KNITTED ARTICLE, AND THE ARTICLE THUS PRODUCED

A method is disclosed for producing a knitted article (1) with two leg pieces (3, 5) and one body (7) on a circular knitting machine with at least one circular needle bed. The method comprises the following steps: knitting a continuous tubular knitted article, starting from a first end up to a second end, by means of the circular needle bed; forming an aperture in an intermediate portion of the tubular article in the body thereof; sewing around said aperture a seamless continuous annular band (17) of elastic fabric.

Publication: [**WO 2015118565 A1 20150813**](#)

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Prio:
Appl.No: IT2014000031
IPC: D04B 1/24 2006.01 (IA)

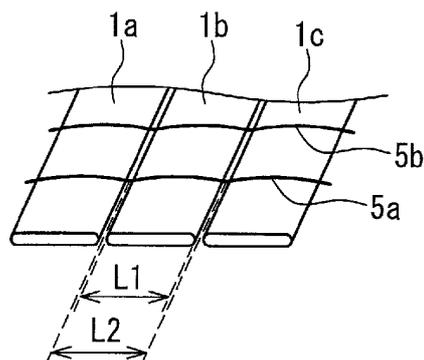


MULTI-AXIAL FIBRE SHEET, AND PREFORM USING SAME FOR PRODUCING FIBRE REINFORCED PLASTIC

In this multi-axial fibre sheet, a plurality of layers having a plurality of fibre bundles arranged at a prescribed angle (θ) therein are stacked, and knitting yarn is used to knit together and secure the plurality of fibre bundles. The width ($L1$) of each of the fibre bundles and the knitting pitch ($L2$) of the knitting yarn satisfy the relationship $L2 \geq (1/\sin\theta) \times L1$ (with the caveat that θ is the absolute angle of the fibre bundles with respect to the length direction of the multi-axial fibre sheet, and $0^\circ < \theta < 90^\circ$). Accordingly, provided are: a multi-axial fibre sheet in which a degree of freedom (gaps) can be imparted to carbon fibres forming slit yarns, and in which creases, apertures, and twists do not readily form, even if deformation occurs during molding; and a preform which uses said multi-axial fibre sheet, and which is used to produce fibre reinforced plastic.

Publication: [**WO 2015119091 A1 20150813**](#)

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Prio: JP 20140204 2014-019474
Appl.No: JP2015052911
IPC: D04H 3/04 2012.01 (IA)



METHOD FOR MANUFACTURING BALL TYPE FIBER FILLER FORMED FROM BLENDED FIBER OF WOOL FIBER AND SYNTHETIC FIBER, BALL TYPE FIBER FILLER MANUFACTURED THEREBY, AND COLD WEATHER CLOTHING USING SAME

The present invention relates to a method for manufacturing a ball type fiber filler formed from a blended fiber of a wool fiber and a synthetic fiber, comprising: a wool filler preparation step; a blended synthetic fiber processing step; a blended fiber processing step; and a ball processing step, wherein the blended synthetic fiber processing step comprises a heat treatment step of binding a normal synthetic fiber and a low-melting point polyester staple fiber by mixing the normal synthetic fiber and the low-melting point polyester staple fiber and heat treating the obtained mixture at a temperature higher than or equal to the melting point of the low-melting point polyester staple fiber.

Publication: [WO 2015119413 A1 20150813](#)

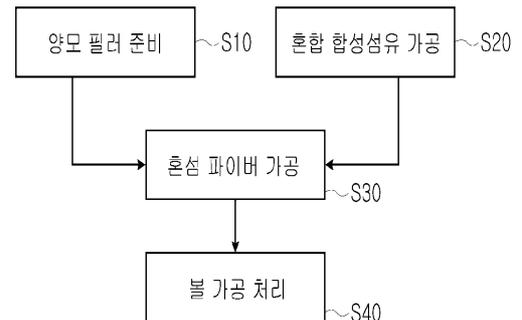
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Prio: KR 20140205 10-2014-0013065

Appl.No: KR2015001100

IPC: D04H 1/02 2006.01 (IA)



S10 ... Prepare wool filler
 S20 ... Process blended synthetic fiber
 S30 ... Process blended fiber
 S40 ... Perform ball processing

MOISTURE-ABSORBING HEAT-GENERATING QUICK-DRYING MOISTURE-RETAINING THERMAL FABRIC AND MANUFACTURING METHOD THEREOF

A moisture-absorbing heat-generating quick-drying moisture-retaining thermal fabric and manufacturing method thereof; the fabric is woven by a first yarn, a second yarn, a third yarn and a fourth yarn; the first yarn is regenerated cellulose fiber-type blended yarn made by blending regenerated cellulose fiber with one or more of linen, wool or cashmere, and cotton fiber, or is regenerated cellulose long fiber yarn or regenerated cellulose staple fiber yarn; the second yarn is modified polyester fiber yarn having a non-circular cross section; the third yarn is cotton fiber-type blended yarn made by blending cotton fiber with one or two of polyester staple fiber or polyacrylonitrile fiber, or is all-cotton yarn; and the fourth yarn is polyurethane fiber yarn. The fabric has a moisture-absorption heat-generation value above the national standard, and good moisture-absorption and quick-drying properties, and a thermal value meeting the national standard, and also has comfortable resilience, and a soft, smooth feel of the surface contacting the skin. In addition, the manufacturing method has a simple process and is easy to operate.

Publication: [WO 2015120760 A1 20150820](#)

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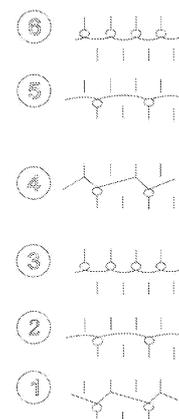


图 1 / Fig. 1

Prio: CN 20140217 201410052915.7
Appl.No: CN2015070619
IPC: D04B 1/14 2006.01 (IA)

THERMALLY FUSIBLE INTERLINING NONWOVEN FABRIC, PRODUCTION THEREOF, AND USE THEREOF

Die Erfindung betrifft einen thermisch fixierbaren Einlagevliesstoff, umfassend einen Spinnfaservliesstoff, der einen Anteil von 80 Gew.-% bis 100 Gew.-% an Spinnfasern aufweist, die eine Erweichungs- und Schmelztemperatur oder, falls nicht vorhanden, eine Zersetzungstemperatur größer als 170 °C aufweisen, sowie eine Feinheit zwischen 0,5 dtex und 3 dtex, vorzugsweise zwischen 0,5 dtex und 2,5 dtex, besonders bevorzugt zwischen 0,5 und 2,1 dtex, wobei die Dicke des Einlagevliesstoffs von 0,01 mm bis 1 mm, vorzugsweise 0,01 mm bis 0,5 mm, beträgt, wobei der Spinnfaservliesstoff ein Flächengewicht von 5 g/m² bis 15 g/m², vorzugsweise von 5 g/m² bis 12 g/m², besonders bevorzugt zwischen 5 g/m² und 10 g/m² aufweist.

Publication: [**WO 2015121282 A1 20150820**](#)

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Prio: DE 20140212 10 2014 001 776.1

Appl.No: EP2015052830

IPC: D04H 1/4334 2012.01 (IA)

NOVEL MATERIAL

A novel composite material comprising an unsaturated polyester resin and plant fibres, a mannequin made from this composite material, and a method of making a mannequin from the composite material. Preferably, the plant fibres are jute fibres which may be recycled from jute sacks to enable closed loop recyclability. Preferably, the unsaturated polyester resin is biodegradable.

Publication: [**WO 2015121652 A1 20150820**](#)

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Prio: GB 20140212 1402486.3, GB 20140214
1402652.0

Appl.No: GB2015050388

IPC: D04H 1/425 2012.01 (IA)

SHEET-MANUFACTURING APPARATUS AND RAW MATERIAL DEFIBRATING APPARATUS

The present invention reduces accumulation of raw material between the coarse crushing unit and the defibrating unit. A sheet-manufacturing apparatus provided with: a coarse crushing unit for coarsely crushing a raw material, which at least contains fibers, in air to form small pieces; a defibrating unit for defibrating at least the small pieces in air; and a forming unit for forming sheets using the defibration product defibrated in the defibrating unit. The defibration amount, which is the amount defibrated per unit time by the defibrating unit, is greater than or equal to the coarse crushing amount, which is the amount coarsely crushed per unit time by the coarse crushing unit.

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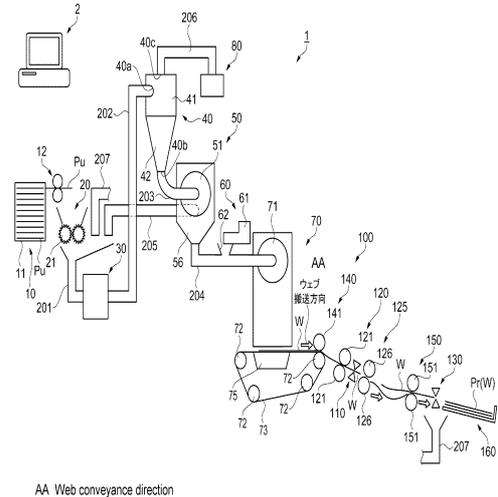
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Prio: JP 20140214 2014-026327

Appl.No: JP2014004952

IPC: D04H 1/732 2012.01 (IA)



LACE FABRIC HAVING HOT-MELT FUNCTION

The present invention relates to a novel lace fabric. The lace fabric (1) of the present invention is a lace fabric which is woven with two different types of threads, wherein a through-hole area and a cover factor area are formed by weaving a bottom yarn; the lace fabric is formed by weaving a motive thread on a surface of a bottom yarn layer being a cover factor area; and a wick surface of the bottom yarn is hot-melt coated, while the motive thread is not hot-melt coated.

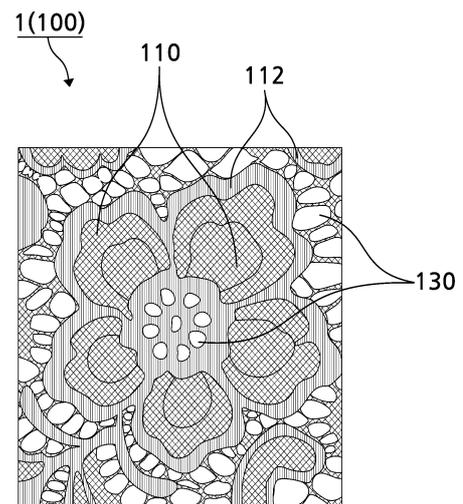
Publication: [WO 2015122648 A1 20150820](#)

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Prio: KR 20140211 10-2014-0015187, KR 20140421 10-2014-0047205

Appl.No: KR2015001195

IPC: D04B 21/06 2006.01 (IA)



POLYMERIC STRUCTURES COMPRISING A DUAL PURPOSE MATERIAL AND/OR COMPONENT THEREOF AND METHODS FOR MAKING SAME

Hydroxyl polymer polymeric structures, for example fibrous elements, such as filaments and/or fibers, and more particularly to hydroxyl polymer fibrous elements that contain a dual purpose material and/or dual purpose material component, fibrous structures made therefrom, and methods for making same are provided.

Publication: [WO 2015123199 A1 20150820](#)

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Prio: US 20140211 61/938,327

Appl.No: US2015015203

IPC: D04H 1/425 2012.01 (IA)

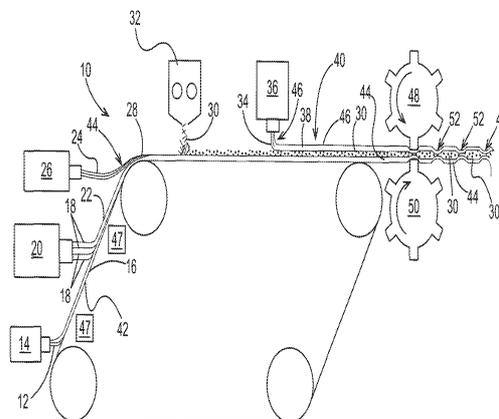


Fig. 1

SCOURING ARTICLE AND METHODS OF MAKING AND USING

A scouring article including a monolithic nonwoven pad with a semi-densified fibrous layer that is integral to the monolithic nonwoven pad and that provides a major surface of the monolithic nonwoven pad, and methods of making and using.

Publication: [WO 2015123635 A1 20150820](#)

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Prio: US 20140217 61/940,580

Appl.No: US2015016046

IPC: D04H 1/4374 2012.01 (IA)

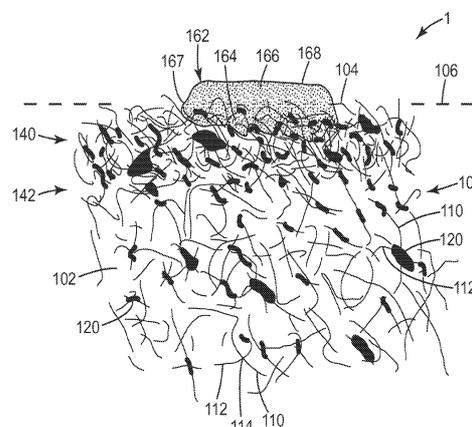


Fig. 2

MICROFIBER NONWOVEN COMPOSITE

Die Erfindung betrifft einen Mikrofaser-Verbundvliesstoff umfassend eine erste und eine zweite Faserkomponente, die in Form alternierender Lagen angeordnet sind, wobei - mindestens eine erste Lage A die erste Faserkomponente in Form schmelzgesponnener und zu einem Vlies abgelegter Verbundfilamente umfasst, die zumindest teilweise zu Elementar-Filamenten mit einem mittleren Titer von weniger als 0,1 dtex, vorzugsweise zwischen 0,03 dtex und 0,06 dtex gesplittet und verfestigt sind, - mindestens eine Lage B auf der ersten Lage A angeordnet ist, wobei die Lage B die zweite Faserkomponente in Form von zu einem Vlies abgelegten und verfestigten Fasern mit einem mittleren Titer von 0,1 bis 3 dtex umfasst, mindestens eine zweite Lage A auf der Lage B angeordnet ist.

Publication: [**WO 2015124334 A1 20150827**](#)

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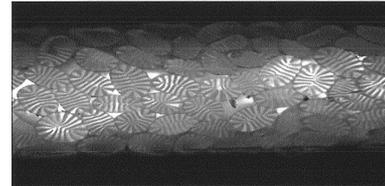
Prio: DE 20140221 10 2014 002 232.3

Appl.No: EP2015050654

IPC: D04H 1/498 2012.01 (IA)

WO 2015/124334 1/6 PCT/EP2015/050654

Fig. 1



CLEANING CLOTH

Die Erfindung betrifft Reinigungstuch umfassend einen Mikrofaser-Verbundvliesstoff, in dem eine erste und eine zweite Faserkomponente in Form alternierender Lagen angeordnet sind, wobei - mindestens eine erste Lage A die erste Faserkomponente in Form schmelzgesponnener und zu einem Vlies abgelegter Verbundfilamente umfasst, die zumindest teilweise zu Elementar-Filamenten mit einem mittleren Titer von weniger als 0,1 dtex, vorzugsweise zwischen 0,03 dtex und 0,06 dtex gesplittet und verfestigt sind, - mindestens eine Lage B auf der ersten Lage A angeordnet ist, wobei die Lage B die zweite Faserkomponente in Form von zu einem Vlies abgelegten und verfestigten Fasern mit einem mittleren Titer von 0,1 bis 3 dtex umfasst, mindestens eine zweite Lage A auf der Lage B angeordnet ist.

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23, 64689 Grasellenbach, DE

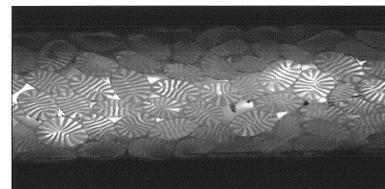
Prio: DE 20140221 10 2014 002 231.5

Appl.No: EP2015050660

IPC: D04H 1/498 2012.01 (IA)

WO 2015/124335 1/6 PCT/EP2015/050660

Fig. 1



VOLUME NONWOVEN FABRIC

Die Erfindung betrifft einen Vliesstoff umfassend ein volumengebendes Material, insbesondere Faserbällchen, Daunen und/oder Feinfedern mit einer Höchstzugkraft, gemessen nach DIN EN 29 073 bei einem Flächengewicht von 50g/m²; in mindestens einer Richtung von mindestens 0,3N/5cm, insbesondere von 0,3N/5cm bis 100N/5cm.

Publication: [WO 2015124548 A1 20150827](#)

Applicant: CARL FREUDENBERG KG, Hühnerweg 2-4,
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Prio: DE 20140218 10 2014 002 060.6

Appl.No: EP2015053265

IPC: D04H 1/00 2006.01 (IA)

RADIAL BRAIDING MACHINE AND FLAT BRAID

Die vorliegende Erfindung betrifft eine Radialflechtmaschine mit Stehfaden -und Flechtfadenzuführungen über ein Klöppelgetriebe (1), mit einem Flechtring (5), durch den die Steh (2) -und Flechtfäden (3) hindurchgeführt sind, und mit zumindest einer Transporteinrichtung (10) für den Transport eines zu umflechtenden Kerns (6), dadurch gekennzeichnet, dass der Flechtring (5) in Projektion auf eine vom Klöppelgetriebe (1) aufgespannte Fadenaustrittsebene E1 einen unrunder Innenquerschnitt aufweist.

Publication: [WO 2015124626 A1 20150827](#)

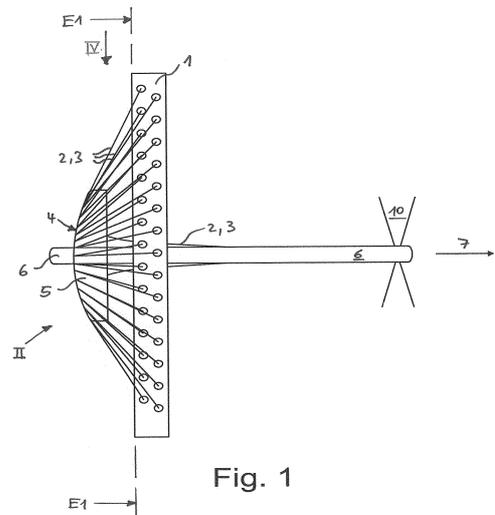
Applicant: SGL KÜMPERS GMBH & CO. KG, Basilikastr.
22-30, 48429 Rheine, DE

Inventor: BAUMGART, Gregor, Grefrather Str. 77,
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Schageshofstr.1, 47877 Willich, DE; WIRTZ,
Jörg, Rotkehlchenweg 26, 48432 Rheine, DE;
LEIFELD, Martin, Seidenstraße 49, 47906
Kempen, DE; NEFIGMANN, Bernd, Hollich 45,
48565 Steinfurt, DE

Prio: DE 20140218 102014202970.8

Appl.No: EP2015053414

IPC: D04C 3/12 2006.01 (IA)



CIRCULAR KNITTING MACHINE

A circular knitting machine (1) for knitwear or hosiery, comprising a bearing structure, a needle-bearing organ (3) and a plurality of mobile needles (N) for producing a knitted fabric; a plurality of flanked stitch-forming slots (5) is defined in an external surface (4) of the needle-bearing organ (3), each of which slots movably houses a respective needle actuatable with alternating motion along the relative stitch-forming slot. The needle-bearing organ is superiorly provided with a knit-forming plane (P) destined to restingly receive portions of knitting situated between two contiguous needles (N). The machine comprises, in the zones (15) comprised between two contiguous stitch-forming slots (5), retaining organs (10) of the knitting exhibiting each a respective portion defining a stop abutment (11) for the knitting; each retaining organ (10) of the knitting being mobile on command from a first position, in which it does not interfere with the knitting being formed, to a second position, in which it inserts between two contiguous needles (N), in a zone which superiorly faces the knit-forming plane. In the zones comprised between the contiguous stitch-forming slots (5), the machine comprises lamellae (20) defining the knitting plane, each exhibiting a respective defining portion (21) of the knitting plane; each lamella (20) is removably mountable superiorly of the needle-bearing organ, so as to be coplanar with the corresponding retaining organ (10) located in the same zone (15), and in such a way that the respective knitting plane defining portion (21) defines a respective portion (Px) of the stitch-forming plane (P) of the needle-bearing organ (3) comprised between two contiguous stitch-forming slots (5).

Publication: [WO 2015125087 A1 20150827](#)

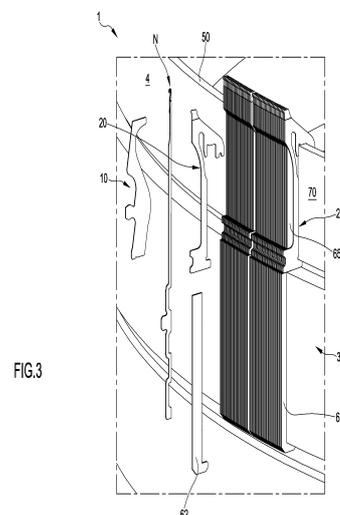
Applicant: SANTONI S.P.A., Via Carlo Fenzi, 14, I-25135
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12, I-25123 Brescia, IT

Prio: IT 20140224 BS2014A000048

Appl.No: IB2015051237

IPC: D04B 15/14 2006.01 (IA)



BIAS FABRIC WEAVING DEVICE USING TORCHON LACE MACHINE

The present invention provides a bias fabric weaving device using a torchon lace machine, in which when weaving (knitting) a simple structure of a plain weave (or a twill weave) using carbon yarn, weaving can be performed safely and accurately without using a solenoid which is the cause of electrical failure, heat generation, and the like. The present invention is characterized by the following: rotor metals (1) are provided in an annular shape and move spindle runners (2) on which is mounted a bobbin (B) having carbon yarn wound therearound; a clutch means (7) for driving or stopping the rotor metals (1) is provided; and slide shafts (15) for driving and stopping the clutch means (7) are removably fixed to one location among a plurality of locations at which cam bodies (25) which apply a pressing force to the drive side are formed at the outer circumference of rotation main bodies (26). A drive mechanism for the rotor metals (1) is not impacted by fine and fluffy fibers coming from the carbon yarn, and the installation position of the cam bodies can be freely changed.

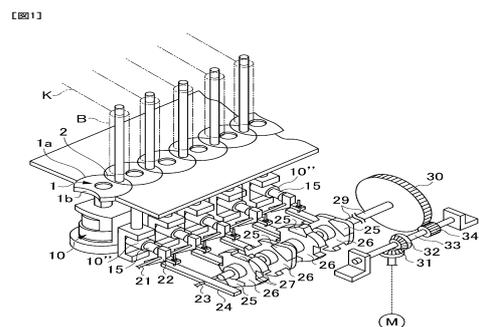
Publication: [WO 2015125189 A1 20150827](#)

Applicant: ICHIKAWA IRON WORKS CO.,LTD., 1764-10,
Sakaino-cho 7-chome, Kiryu-shi, Gunma,
3760002, JP

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WORKS CO.,LTD., 1764-10, Sakaino-cho 7-
chome, Kiryu-shi, Gunma, 3760002, JP

Prio: JP 20140221 2014-032334

Appl.No: JP2014005313



IPC: D04C 3/24 2006.01 (IA)

NON-KINKING WRAPPABLE KNIT SLEEVE AND METHOD OF CONSTRUCTION THEREOF

A warp knit textile sleeve (10, 110, 210) is provided. The sleeve (10, 110, 210) has an elongate, wrappable wall (14, 114, 214) extending along a longitudinal axis between opposite ends (18, 20). The wall has opposite free edges (22, 24) extending lengthwise along the longitudinal axis (16) between the opposite ends (22, 24). The wall (14, 114, 214) is knit from at least one warp yarn (26, 26') extending lengthwise between the opposite ends (18, 20) and a plurality of weft yarns (28, 29) extending circumferentially between the opposite free edges (22, 24). The weft yarns (28, 29) form a plurality of discrete, annular bands (A, B, C) alternating in adjacent relation along the longitudinal axis (16). The weft yarn (28) of one of the adjacent bands (A) has a first diameter and the weft yarn (29) of the other of the adjacent bands (B, C) has a second diameter, wherein the first diameter is less than the second diameter.

Publication: **WO 2015127216 A1 20150827**

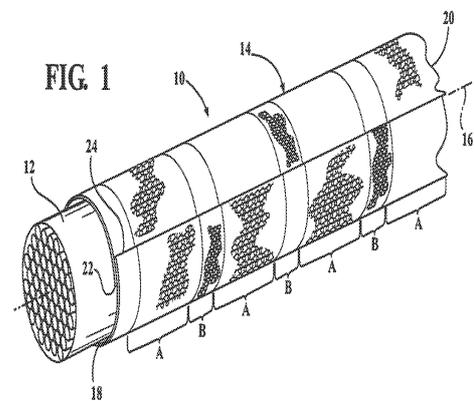
Applicant: FEDERAL-MOGUL POWERTRAIN, INC., 27300 West 11 Mile Road, Tower 300, Metro Office Complex, Southfield, MI 48034, US

Inventor: WOODRUFF, Alexa, A., 47 S. Merion Ave., Flr 1, Bryn Mawr, PA 19010, US; MALLOY, Cassie, M., 666 Bonny Brook Ave., Trappe, PA 19426, US

Prio: US 20140220 61/942,473, US 20150220 14/627,462

Appl.No: US2015016836

IPC: D04B 21/20 2006.01 (IA)



METHOD FOR PRODUCING A PROSTHESIS FOR REINFORCING THE ABDOMINAL WALL

The invention relates to a method for producing a prosthesis comprising a knitted structure made in one piece, in which method a knit (1) comprising a base sheet (2) and a succession of perpendicular folds (3) is produced in a single knitting step, and said knit (1) is then cut on each side of said folds (3) in order to obtain said knitted structure.

Publication: **US 20150218738 A1 20150806**

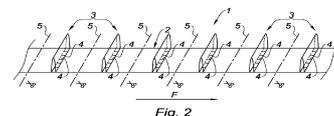
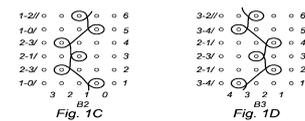
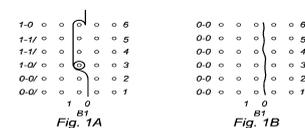
Applicant: Sofradim Production, Trévoux, FR
Inventor: Damien, Simons, Lyon, FR; Alfredo, Meneghin, Laval, FR

Prio: FR 20120925 12/58973, WO 20150212 PCT/EP2013/069953

Appl.No: US14421222

IPC: D04B 21/12 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 2 US 2015/0218738 A1



Module Element for Driving and Retaining Braiding Bobbin Carriers and a Braiding Device

A module element for driving and retaining braiding bobbin carriers on a predetermined bobbin path has at least one base element that can rotate about an axis of rotation, and at least one retaining element that is formed integrally with the base element. The retaining element is configured to releasably hold at least one braiding bobbin carrier offset from the rotary axis.

Publication: [US 20150218739 A1 20150806](#)

Applicant: Airbus Defence and Space GmbH, Ottobrunn, DE

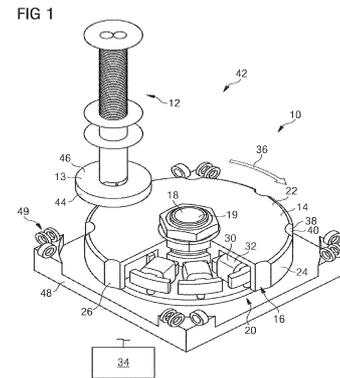
Inventor: Andreas, GESSLER, Haar, DE; Christian, METZNER, Muenchen, DE; Stefan, MITTMANN, Muenchen, DE; Bettina, AROLD, Stade, DE; Hermann, SEEFRIED, Birkhausen, DE

Prio: EP 20140206 14000432.6-1710

Appl.No: US14614695

IPC: D04C 3/06 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 3 US 20150218739 A1



NEEDLE-PUNCHED NON-WOVEN FABRIC, MANUFACTURING METHOD THEREOF AND FILTER AND SOUND ABSORBING MATERIAL FORMED THEREBY

The present invention provides a novel needle-punched nonwoven felt fabric which is made of same or substantially similar melting point short fibers of same type or different types, preferably made of one melting point short fibers of same type, wherein the felt fabric is stiff enough to be self-sustaining and has the ability of shape maintenance. The felt fabric exhibits excellent pleatability, moldability and compressive strength. The invention also provides a method for manufacturing the felt fabric, and a filter comprising the felt fabric used as the material of a filter element of the filter, wherein the filter element requires no support structure to stand alone and persistently retains its shape. The present invention further provides use of the felt fabric as a sound absorbing material.

Publication: [US 20150218740 A1 20150806](#)

Applicant: FAIRTECH INVESTMENT LIMITED, WANCHAI, HK; Ying Yuk, Ng, Shanghai, CN

Inventor: Ying Yuk, Ng, Shanghai, CN

Prio: WO 20111221 PCT/CN2011/084323

Appl.No: US14366651

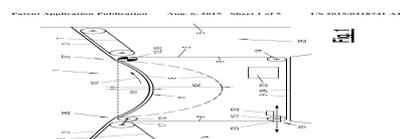
IPC: D04H 1/08 2006.01 (IA)

COMPENSATING DEVICE FOR FLUCTUATING CONVEYING SPEEDS OF A FIBROUS NONWOVEN

A compensating device (1) for fluctuating transport speeds of a fiber nonwoven (3). The compensating device (1) has a buffer belt (2) driven in a loop with three or four or more deflection points (12, 13, 14, 15, 16) and with a variable sag (11) of the carrying run supporting the fiber nonwoven (3). The compensating device (1) further has an adjusting element (19) for adjusting the location of at least one deflecting point (15, 16).

Publication: [US 20150218741 A1 20150806](#)

Applicant: HI TECH TEXTILE HOLDING GMBH, LEONDING, AT; HI TECH TEXTILE HOLDING GMBH, Leonding, AT



Inventor: Steffen, Hartung, Kissing, DE; Joachim, Binnig, Jettingen-Scheppach, DE; Eberhard, Häberle, Wildberg, DE; Andreas, Meier, Affing, DE; Rudolf, Kuhn, Neusass, DE

Prio: DE 20120906 20 2012 103 402.6, WO 20150306 PCT/EP2013/068468

Appl.No: US14426465

IPC: D04H 1/46 2006.01 (IA)

HYDROENTANGLED SPLIT-FIBRE NONWOVEN MATERIAL

A hydroentangled integrated composite nonwoven material, includes a mixture of randomized continuous filaments, splittable shortcut staple fibres, and optionally non-splittable staple fibres. The splittable fibres should be 3-16 mm long bicomponent fibres. Preferably there should be no thermal bonding points between the filaments. The nonwoven material has improved textile feeling and reduced two-sidedness. The continuous filaments should preferably be spunlaid filaments. Some of the staple fibres can be coloured. A process of producing such a nonwoven material is disclosed.

Publication: [US 20150218742 A1 20150806](#)

Applicant: SCA HYGIENE PRODUCTS AB, Goteborg, SE

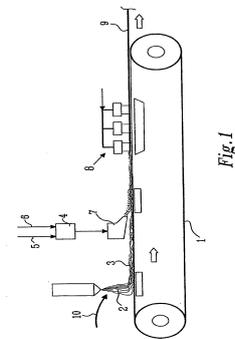
Inventor: Anders, STRALIN, Torslanda, SE; Hannu, AHONIEMI, Landvetter, SE; Lars, FINGAL, Goteborg, SE; Mikael, Strandqvist, Lindome, SE

Prio:

Appl.No: US14630741

IPC: D04H 5/03 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 3 US 20150218742 A1



STOCK-CONTROLLING METHOD FOR A STORAGE YARN FEEDER WITH ROTARY DRUM

A yarn feeder is provided with a drum which is driven to rotate by a motor controlled by a control unit for drawing yarn from a reel and winding it upon itself in the shape of loops forming a stock. The control unit estimates the stock on the drum on the basis of an information indicative of the amount of yarn which is unwound from the drum upon request from a downstream machine, and of an information indicative of the amount of yarn which is wound on the drum, and retroactively controls the motor to substantially stabilize the stock on a reference value. The control unit also performs a parallel correction routine in which compares the stock with the reference value to estimate a stock status $RES < REF_RES$ or $RES \geq REF_RES$, wherein RES is the estimated stock and REF_RES is the reference value.

Publication: [US 20150225880 A1 20150813](#)

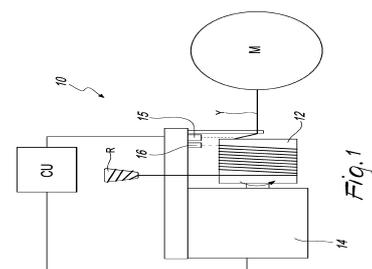
Applicant: L.G.L. ELECTRONICS S.P.A., Gandino, IT

Inventor: Luca, GOTTI, Albino, IT; Pietro, ZENONI, Lefte, IT

Prio: IT 20140213 TO2014A000118

Appl.No: US14620387

Patent Application Publication Aug. 13, 2015 Sheet 1 of 2 US 20150225880 A1



IPC: D04B 15/48 2006.01 (IA)

COATED GLASS REINFORCED FACER

According to one embodiment, a method of forming a facer includes forming a first layer of nonwoven glass fibers and positioning a second layer of reinforcement fibers atop the first layer of nonwoven glass fibers. The method also includes coating the first layer of nonwoven glass fibers and/or the second layer of reinforcement fibers with a binder composition and pressing the first layer of nonwoven glass fibers and the second layer of reinforcement fibers together between a pair of rollers. The binder composition is then dried to couple the first layer of nonwoven glass fibers and the second layer of reinforcement fibers to form the facer. The first layer of nonwoven glass fibers and/or the second layer of reinforcement fibers are free of a material coating prior to coating of the binder composition.

Publication: [US 20150225881 A1 20150813](#)

Applicant: JOHNS MANVILLE, Denver, US; JOHNS MANVILLE, Denver, US

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Prio:

Appl.No: US14177295

IPC: D04H 1/593 2006.01 (IA)

Patent Application Publication Aug. 13, 2015 Sheet 1 of 4 US 2015/0225881 A1

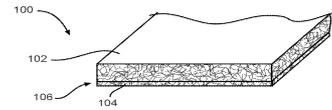


FIG. 1

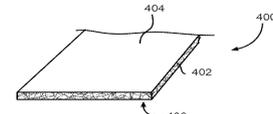


FIG. 4

NON-KINKING WRAPPLE KNIT SLEEVE AND METHOD OF CONSTRUCTION THEREOF

A warp knit textile sleeve is provided. The sleeve has an elongate, wrappable wall extending along a longitudinal axis between opposite ends. The wall has opposite free edges extending lengthwise along the longitudinal axis between the opposite ends. The wall is knit from at least one warp yarn extending lengthwise between the opposite ends and a plurality of weft yarns extending circumferentially between the opposite free edges. The weft yarns form a plurality of discrete, annular bands alternating in adjacent relation along the longitudinal axis. The weft yarn of one of the adjacent bands has a first diameter and the weft yarn of the other of the adjacent bands has a second diameter, wherein the first diameter is less than the second diameter.

Publication: [US 20150233029 A1 20150820](#)

Applicant: Federal-Mogul Powertrain, Inc., Southfield, US

Inventor: Alexa A., Woodruff, Bryn Mawr, US; Cassie M., Malloy, Trappe, US

Prio:

Appl.No: US14627462

IPC: D04B 21/14 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 3 US 2015/0233029 A1

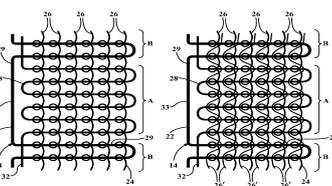
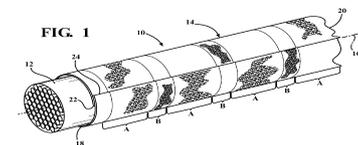


FIG. 2A

FIG. 2B

MELTBLOWN NONWOVEN FABRIC AND USES THEREOF

A meltblown nonwoven fabric is provided having thermoplastic resin fibers having an average fiber diameter of 0.1 to 10 μm , a bulk density of not more than 36 kg/m³ and an air permeability, as measured by a Frazier type method at basis weight of 200 g/m², of 3 to 100 cc/cm²/sec. The meltblown nonwoven fabric has a low bulk density and is excellent in sound absorption performance, oil adsorption performance, heat insulation performance, dust collection performance and filtration performance. Since the meltblown nonwoven fabric can be formed from one kind of a resin composition, it can be simply and easily produced as compared with the case of using mixed fibers or conjugated fibers formed from many kinds of resins, and the resulting meltblown nonwoven fabric can have uniformity and no variability of properties.

Publication: [US 20150233030 A1 20150820](#)

Applicant: MITSUI CHEMICALS, INC., Minato-ku, Tokyo, JP; MITSUI CHEMICALS, INC., Minato-ku, Tokyo, JP

Inventor: Kozo, Iiba, Ichihara-shi, JP; Taro, Ichikawa, Sodegaura-shi, JP; Takeshi, Tsuda, Sodegaura-shi, JP

Prio: JP 20120823 2012-184475, WO 20150219 PCT/JP2013/072522

Appl.No: US14422469

IPC: D04H 3/007 2006.01 (IA)

SPUNBOND NONWOVEN FABRIC

The object of the present invention is to provide a polypropylene spunbond nonwoven fabric excellent in its flexibility, bending resistance, texture and strength. A spunbond nonwoven fabric of the present invention is made of a propylene polymer composition containing a propylene polymer (A) having a melting point of not less than 120° C. and a fatty acid amide having not less than 15 and not more than 21 carbon atoms. An oleic acid amide is preferred as the fatty acid amide having not less than 15 and not more than 21 carbon atoms. Preferably, the propylene polymer composition further contains a propylene polymer (B) having a melting point of less than 120° C.

Publication: [US 20150233031 A1 20150820](#)

Applicant: MITSUI CHEMICALS, INC., Minato-ku, Tokyo, JP; MITSUI CHEMICALS INC., Minato-ku, Tokyo, JP

Inventor: Naosuke, Kunimoto, Chiba-shi, JP; Kenichi, Suzuki, Ichihara-shi, JP; Yoshihisa, Kawakami, Yokkaichi-shi, JP; Kosuke, Ota, Ichihara-shi, JP

Prio: JP 20120927 2012-213925, WO 20150326 PCT/JP2013/076061

Appl.No: US14431615

IPC: D04H 3/007 2006.01 (IA)

KNITTING NEEDLE SET

The present disclosure is directed to a needle set that includes a plurality of knitting needles configured to knit tubular knitted items, each knitting needle including: a first needle point, a second needle point, and a shank extending between the first and second needle points, the first needle point being a different needle shape from the second needle point.

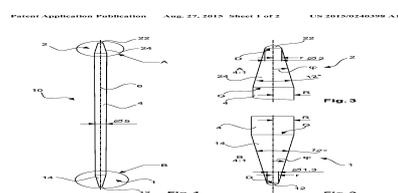
Publication: [US 20150240398 A1 20150827](#)

Applicant: Gustav Selter GmbH & Co KG, Altena, DE

Inventor: Thomas, Selter, Altena, DE

Prio: DE 20140226 202014001683.6

Appl.No: US14227970



IPC: D04B 3/02 2006.01 (IA)

FOOTWEAR AND METHOD FOR KNITTING FOOTWEAR

There is provided a footwear having a three-dimensional shape that fits a foot of a wearer regardless of a stretchability of a knitted fabric. A seamless footwear (1) including an instep cover section (3) and a sole cover section (2) is provided. The sole cover section (2) is divided to a heel portion (20) and a sole main body portion (21). A setup portion (1S) or a knitting end portion is formed at a heel side end of the footwear (1), and such setup portion (1S) or the knitting end portion is extended in a height direction of the footwear (1) and also connected to the heel portion (20). The heel portion (20) is formed by a knitting of stacking a stitch row for plural tiers in a wale direction, and gradually differing the number of stitches in a knitting width direction of the stitch row when stacking tiers of the stitch row. The heel portion (20) is formed to a tongue shape in which a width gradually becomes narrower toward a heel side of the footwear (1) according to the change in the number of stitches.

Publication: **EP 2901873 A1 20150805**

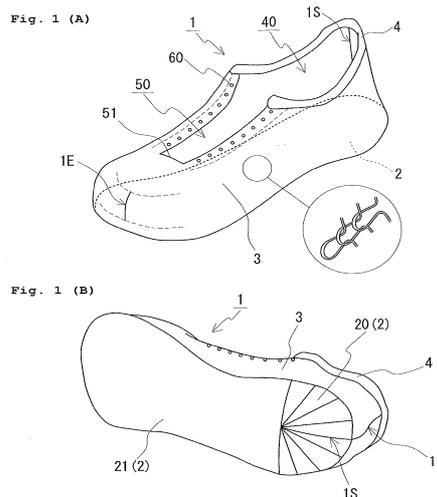
Applicant: Shima Seiki Manufacturing, Ltd., 85, Sakata, Wakayama-shi, Wakayama 641-8511, JP

Inventor: IKENAKA, Masamitsu, c/o SHIMA SEIKI MFG. LTD. 85 Sakata, Wakayama-shi Wakayama 641-8511, JP

Prio: JP 20120925 2012211377

Appl.No: EP13842509

IPC: A41B 11/00 2006.01 (IA)

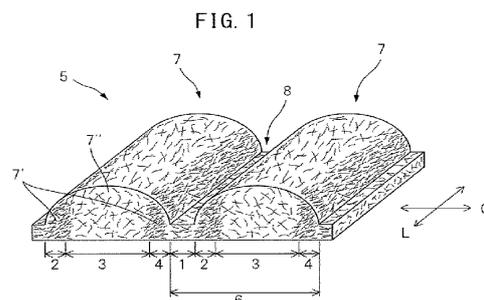


NONWOVEN FABRIC AND ABSORBENT ARTICLE

The purpose of the present invention is to provide a nonwoven fabric for use in the top sheet of an absorbent article that is unlikely to become sticky after absorbing menstrual blood, that has a silky feel, and that makes it difficult for absorbed menstrual blood to spread on the nonwoven fabric. The nonwoven fabric of the present invention has the configuration indicated below. The nonwoven fabric (5) is for use in the top sheet of an absorbent article, has a lengthwise direction (L) and a width direction (C), and is characterized in that: the nonwoven fabric (5) has a plurality of units (6) in the width direction (C) that comprise four areas, namely a first area (1), a second area (2), a third area (3), and a fourth area (4) that extend in the lengthwise direction (L); the second area (2) and the fourth area (4) have a higher content by percentage of fibers that are oriented in the lengthwise direction (L) than the third area (3); the first area (1) has a higher content by percentage of fibers that are oriented in the width direction (C) than the third area (3); the second area (2), the third area (3), and the fourth area (4) respectively comprise a second area (12) containing a predetermined blood lubricity-imparting agent, a third area (13) containing the blood lubricity-imparting agent, and a fourth area (14) containing the blood lubricity-imparting agent; and in that the basis weights of the blood-lubricity imparting agent in the second area (12) containing the blood lubricity-imparting and in the fourth area (14) containing the blood lubricity-imparting agent are higher than the basis weight of the blood lubricity-imparting agent in the third area (13) containing the blood-lubricity imparting agent.

Publication: **EP 2901974 A1 20150805**

Applicant: Unicharm Corporation, 182 Shimobun Kinseicho, Shikokuchuo-shi, Ehime 799-0111, JP



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Prio: JP 20120928 2012218742

Appl.No: EP13840603

IPC: A61F 13/15 2006.01 (IA)

NONWOVEN AND ABSORBENT ARTICLE

The purpose of the present invention is to provide a nonwoven for a top sheet of an absorbent article that is unlikely to stick after having absorbed menstrual blood, that is smooth and dry, and in which the absorbed menstrual blood is unlikely to diffuse on the nonwoven. This nonwoven has the following configuration. A nonwoven (1) for a top sheet of an absorbent article, having a lengthwise direction (L) and a crosswise direction (C), wherein the nonwoven (1) has a plurality of ridge parts (2) and a plurality of groove parts (3) extending in the lengthwise direction (L) and disposed in alternating fashion in the crosswise direction (C), the nonwoven (1) being characterized in that the ridge parts (2) and the groove parts (3) have a plurality of through-holes (4), and the ridge parts (2) have a region (17) containing a blood lubricity-imparting agent that contains a predetermined blood lubricity-imparting agent.

Publication: [EP 2901981 A1 20150805](#)

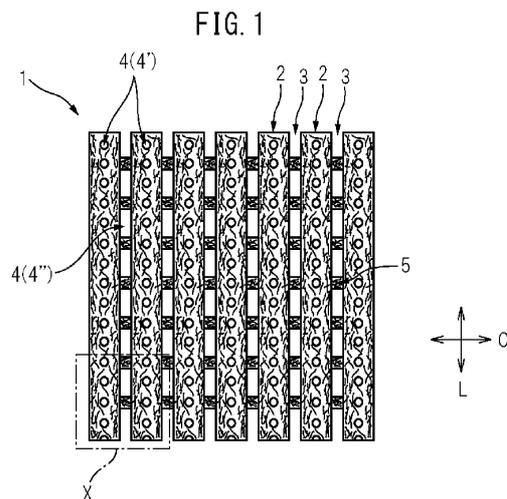
Applicant: Unicharm Corporation, 182 Shimobun Kinsei-cho, Shikokuchuo-shi, Ehime 799-0111, JP

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Prio: JP 20120930 2012218979

Appl.No: EP13841207

IPC: A61F 13/15 2006.01 (IA)



SOUND-ABSORBING MATERIAL HAVING EXCELLENT SOUND ABSORPTION PROPERTIES AND METHOD FOR MANUFACTURING SAME

The present invention provides a sound-absorbing material with excellent sound-absorbing performance and a method for manufacturing thereof. More particularly, it relates to a sound-absorbing material, which can improve sound absorption coefficient and transmission loss by forming large surface area and air layer, so as to induce viscosity loss of incident sound energy, may make light-weight design possible because it can express excellent sound-absorbing performance even using reduced amount of fiber, and can improve sound-absorbing performance by using binder fiber having rebound resilience, so as to maintain enough strength between fiber and also to maximize viscosity loss of sound energy transmitted to fiber structure; and a method for manufacturing thereof.

Publication: [EP 2902266 A1 20150805](#)

Applicant: Hyundai Motor Company, 12, Heolleung-ro Seocho-gu, Seoul 137-938, KR; Kia Motors Corporation, 12, Heolleung-ro Seocho-gu, Seoul 137-938, KR; Toray Chemical Korea Inc., Gongdan-dong 102 Gumi-daero, Gumi-si, Gyeongsangbuk-do 730-030, KR

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Prio: KR 20120928 20120108764

Appl.No: EP13842710

IPC: B60R 13/08 2006.01 (IA)

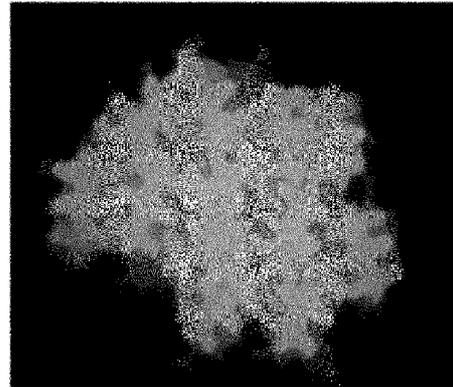


FIG. 4

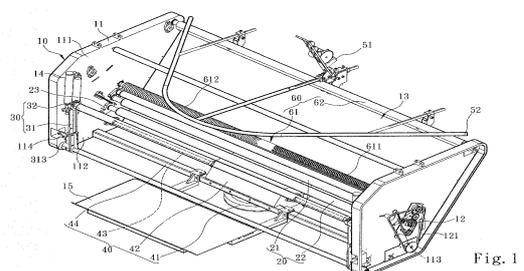
Fabric rolling apparatus for circular knitting machines

There is disclosed a fabric rolling apparatus driven by a circular knitting machine to revolve and receive a knitted fabric (70). The fabric rolling apparatus comprises a bracket (10), a transmission rod set (20) located on the bracket (11) and a revolving fabric collection mechanism (30). The bracket (10) includes two side boxes (11) corresponding to each other and a drive mechanism (12) located in each side box (11). Each side box (11) has a top side (111) and a bottom side (112). The drive mechanism (12) drives the transmission rod set (20) to guide movement of the fabric (70). The revolving fabric collection mechanism (30) includes two revolving arms (31) hinged respectively on the side boxes (11) and a fabric rolling rod (32) driven by the transmission rod set (20) to revolve and roll the fabric (70). Each revolving arm (31) has a revolving end (311) hinged on the bottom side (112) of the side box (11) and a holding end (312) connected to the fabric rolling rod (32) at an elevation higher than the revolving end (311).

Publication: [EP 2902351 A1 20150805](#)

Applicant: Pai Lung Machinery Mill Co., Ltd., No. 8, Ting-Ping Rd. Ruifang District, New Taipei City 224, TW

Inventor: Chen, Shih-Chi, No.8, Ting-Ping Rd., 224 Ruifang District, New Taipei City, TW; Lee, Peng Cheng, No. 8, Ting-Ping Rd., 224 Ruifang District, New Taipei City, TW



Prio:
Appl.No: EP14153206
IPC: B65H 18/16 2006.01 (IA)

NONWOVEN CLOTH

In order to address the problem of providing a nonwoven cloth provided with both improved softness and adequate thickness and specific volume, the present invention provides a nonwoven cloth having thermally fused composite fibers (F1, F2) that are mutually intersecting and overlapping, and a constricted thermally adhesive section (B1) in which the thermally fused composite fibers (F1, F2) are thermally fused in the intersection region (R1); wherein the constricted thermally adhesive section (B1) has a recessed surface facing a center line (A1) extending in a direction (Z1) overlapping with the thermally fused composite fibers across the center (P1) of the intersection region (R1), the distance between the thermally fused composite fibers (F1, F2) being larger than the sum of the radii of the thermally fused composite fibers, the thickness under a load of 3.0 gf/cm² being 0.5-3.0 mm, and the specific volume being 6-300 cm³/g.

Publication: **EP 2902537 A1 20150805**

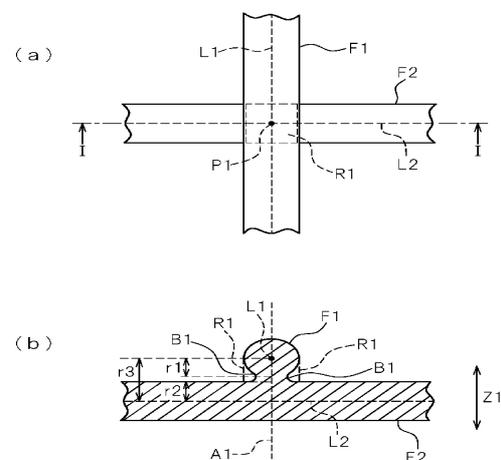
Applicant: Unicharm Corporation, 182 Shimobun Kinsei-cho, Shikokuchuo-shi, Ehime 799-0111, JP
Inventor: OKUDA, Jun, c/o UNICHARM CORPORATION Technical Center 1531-7 Wadahama Toyohama-cho, Kanonji-shi Kagawa 769-1602, JP; MITSUNO, Satoshi, c/o UNICHARM CORPORATION Technical Center 1531-7 Wadahama Toyohama-cho, Kanonji-shi Kagawa 769-1602, JP

Prio: JP 20120928 2012218854

Appl.No: EP13842672

IPC: D04H 1/541 2012.01 (IA)

FIG. 1



SPUN-BONDED NON-WOVEN FABRIC

The object of the present invention is to provide a polypropylene spunbond nonwoven fabric excellent in its flexibility, bending resistance, texture and strength. A spunbond nonwoven fabric of the present invention is made of a propylene polymer composition containing a propylene polymer (A) having a melting point of not less than 120°C and a fatty acid amide having not less than 15 and not more than 21 carbon atoms. An oleic acid amide is preferred as the fatty acid amide having not less than 15 and not more than 21 carbon atoms. Preferably, the propylene polymer composition further contains a propylene polymer (B) having a melting point of less than 120°C.

Publication: **EP 2902538 A1 20150805**

Applicant: Mitsui Chemicals, Inc., 5-2, Higashi-Shimbashi 1-chome Minato-ku, Tokyo 105-7117, JP

Inventor: KUNIMOTO, Naosuke, c/o MITSUI CHEMICALS INC. 580-32 Nagaura, Sodegaura-shi Chiba 299-0265, JP; SUZUKI, Kenichi, c/o MITSUI CHEMICALS INC. 580-32 Nagaura, Sodegaura-shi Chiba 299-0265, JP; KAWAKAMI, Yoshihisa, c/o MITSUI CHEMICALS INC. 580-32 Nagaura, Sodegaura-shi Chiba 299-0265, JP; OTA, Kosuke, c/o MITSUI CHEMICALS INC. 580-32 Nagaura, Sodegaura-shi Chiba 299-0265, JP

Prio: JP 20120927 2012213925

Appl.No: EP13840229

IPC: D04H 3/007 2012.01 (IA)

Fabric for garments to prevent surface lipodystrophy

Il comprend une pluralité d'alternances de régions de pression (1) et de régions de dépression (2), les régions de pression (1) étant aptes à comprimer des régions de tissus biologiques d'un utilisateur et les régions de dépression (2) étant aptes à relâcher des régions de tissus biologiques de l'utilisateur, les régions de pression (1) présentant une résistance plus importante à l'étirement que les régions de dépression (2) et la pluralité d'alternances étant conformées de sorte à réaliser un massage de type palper/rouler lors de mouvements musculaires de l'utilisateur. L'invention concerne également un vêtement (200) comprenant au moins une portion formée d'un textile (100) tel que précédemment décrit.

Publication: [EP 2904999 A1 20150812](#)

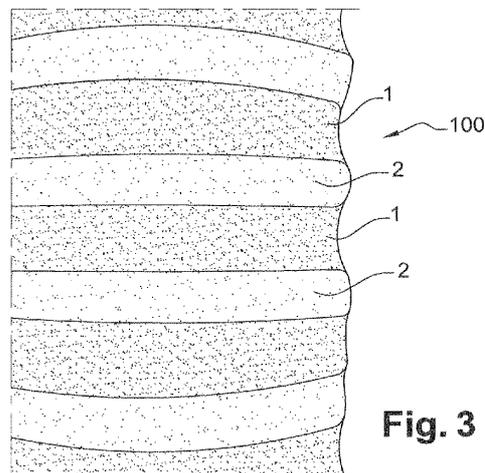
Applicant: BV Sport, Zone de la Grande Ourse 16 rue Jean Sebastien Bach, 42000 Saint Etienne, FR

Inventor: Corona, Salvator, Fontvieille, 42350 LA TALAUDIERE, FR; Corona, Nicolas, 45, rue de Saint Just, 42000 SAINT ETIENNE, FR; Couzan, Serge, Chemin de Marendon, 42000 SAINT ETIENNE, FR; Pouget, Jean François, L'Orangerie, 42580 L'ETRAT, FR

Prio: FR 20140129 1450695

Appl.No: EP15153133

IPC: A61F 13/08 2006.01 (IA)



Assembly of a warp knitting machine

Es wird eine Baugruppe einer Kettenwirkmaschine angegeben mit Bauelementen, die durch einen Bolzen (2, 3) relativ zueinander beweglich miteinander verbunden sind. Man möchte eine hohe Arbeitsgeschwindigkeit einer Kettenwirkmaschine mit guter Laufruhe ermöglichen können. Hierzu ist vorgesehen, dass der Bolzen (2, 3) einen Kern aus einem faserververstärkten Kunststoff und eine metallische Oberfläche aufweist.

Publication: [EP 2905365 A1 20150812](#)

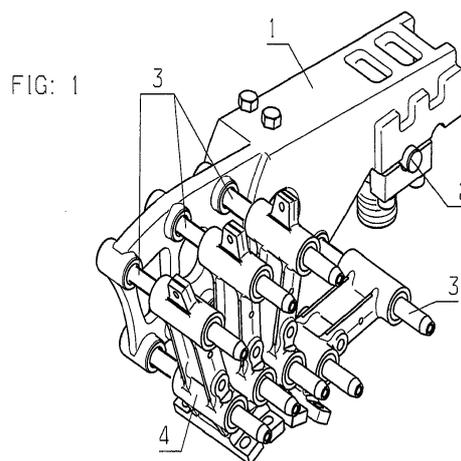
Applicant: Karl Mayer Textilmaschinenfabrik GmbH, Brühlstrasse 25, 63166 Obertshausen, DE

Inventor: Schuler, Günter, Kirchgasse 7, 64850 Schaaheim, DE; Lehmann, Frank, Rodgaustraße 14, 63500 Seligenstadt, DE

Prio:

Appl.No: EP14154258

IPC: D04B 27/00 2006.01 (IA)



Modular element for powering and holding braiding lace and braiding device

Die Erfindung betrifft ein Modulelement (10) zum Antreiben und Halten von Flechtklöppeln (12) auf einer vorbestimmten Klöppellaufbahn (52), aufweisend wenigstens ein um eine Drehachse (18) drehbares Basiselement (14) und wenigstens ein integral mit dem Basiselement (14) gebildetes Halteelement (16), wobei das Halteelement (16) zum lösbaren Halten wenigstens eines Flechtklöppels (12) von der Drehachse (18) versetzt ausgebildet ist. Weiter betrifft die Erfindung eine Flechtvorrichtung (50), die eine Mehrzahl solcher Modulelemente (10) aufweist.

Publication: [EP 2905366 A1 20150812](#)

Applicant: Airbus Defence and Space GmbH, Willy-Messerschmitt-Straße 1, 85521 Ottobrunn, DE

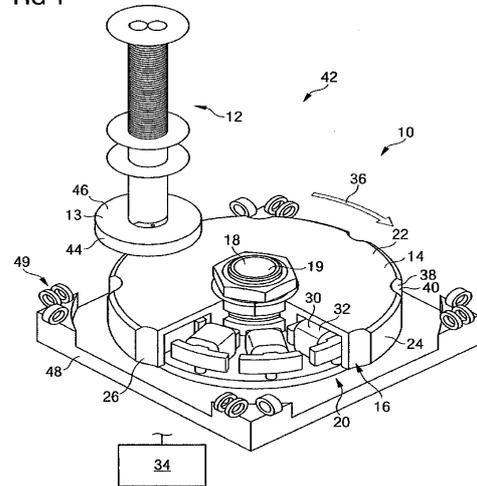
Inventor: Gessler, Andreas, Brunnenstraße 6, 85540 Haar, DE; Metzner, Christian, Perlacher Straße 10, 81539 München, DE; Mittmann, Stefan, Hohenwaldeck-Straße 43, 81541 München, DE; Arold, Bettina, Wasser West 19, 21682 Stade, DE; Seefried, Hermann, Grabenfeld 13, 86757 Birkhausen, DE

Prio:

Appl.No: EP14000432

IPC: D04C 3/28 2006.01 (IA)

FIG 1



ELECTROSPINNING DEVICE AND NANOFIBER MANUFACTURING DEVICE PROVIDED WITH SAME

An electrospinning device 1 includes an electrode 10 having a concave curved surface 11 and a needle-shaped spinning nozzle 20 surrounded by the concave curved surface 11 of the electrode 10. With an electric field applied between the electrode 10 and the nozzle 20, a spinning solution is jetted from the tip of the nozzle 20 to form a nanofiber. The nozzle 20 is located such that the direction in which the nozzle 20 extends passes through or near the center of a circle defined by the open end of the concave curved surface 11 of the electrode 10 and that the tip 20a of the nozzle 20 is positioned in or near the plane including the circle defined by the open end.

Publication: [EP 2907902 A1 20150819](#)

Applicant: Kao Corporation, 14-10, Nihonbashi-Kayabacho, 1-chome, Chuo-ku Tokyo 103-8210, JP

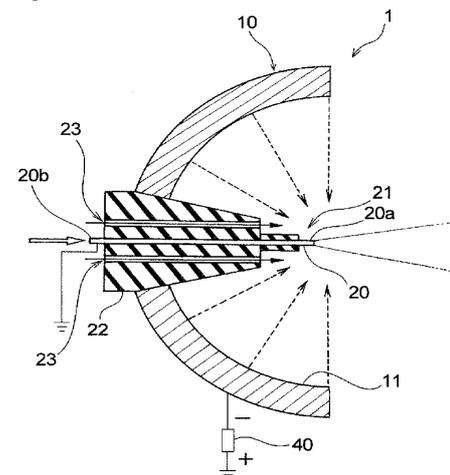
Inventor: KODAMA, Shinji, c/o Kao Corporation Research Laboratories 2606 Akabane Ichikaimachi, Haga-gun Tochigi 321-3497, JP

Prio: JP 20121011 2012226043, JP 20131004 2013209331

Appl.No: EP13844962

IPC: D01D 5/04 2006.01 (IA)

Fig. 2



A stock-controlling method for a storage yarn feeder with rotary drum

A yarn feeder is provided with a drum (12) which is driven to rotate by a motor (14) controlled by a control unit (CU) for drawing yarn from a reel (R) and winding it upon itself in the shape of loops forming a stock. The control unit (CU) estimates the stock (RES) on the drum (12) on the basis of an information indicative of the amount of yarn which is unwound from the drum (12) upon request from a downstream machine (M), and of an information indicative of the amount of yarn which is wound on the drum (12), and retroactively controls the motor (14) to substantially stabilize the stock (RES) on a reference value (REF_RES). The control unit (CU) also performs a parallel correction routine in which it compares the stock (RE) with the reference value (REF_RES) to estimate a stock status $RES < REF_RES$ or $RES \geq REF_RES$, wherein RES is the estimated stock and REF_RES is the reference value, and compares the estimated stock status with a presence signal generated by sensor means (16) adapted to generate an absolute binary information (RES_PRES) indicative of the presence/absence of yarn in a monitored area of the drum (12), and in case of inconsistency between the estimated stock status and the presence signal, corrects the stock (RES) so that it converges toward the monitored area of the drum (12).

Publication: [EP 2907906 A1 20150819](#)

Applicant: L.G.L. Electronics S.p.A., Via Ugo Foscolo, 156, 24024 Gandino (Bergamo), IT

Inventor: Gotti, Luca, Via Matteotti, 26, I-24021 Gandino (BG), IT; Zenoni, Pietro, Via Montegrappa, 3, I-24026 Leffe (BG), IT

Prio: IT 20140213 TO20140118

Appl.No: EP14003622

IPC: D04B 15/48 2006.01 (IA)

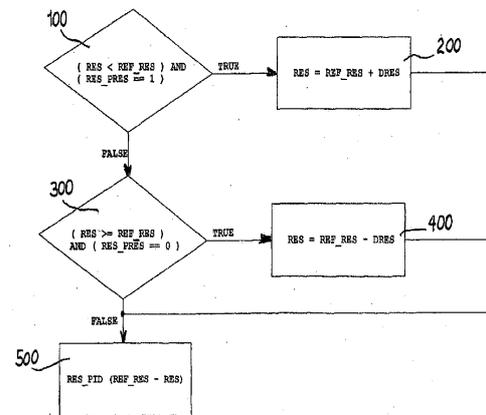


Fig. 2

Storage yarn feeder with rotary drum and yarn-unwinding sensor

A motorized, yarn-winding rotary drum (12) rotatably supported with respect to a motor-housing (16) is adapted to have a plurality of yarn loops (Y) wound on itself, which are adapted to be unwound upon request from a downstream machine. A yarn-unwinding sensor counts the yarn loops unwinding from the rotary drum (12) and comprises light-emitting means (42) and light-receiving means (44), both integral with the motor-housing (16), one of which has an annular configuration operatively facing an annular surface (30a) of the rotary drum (12) from which the yarn is unwound. Light-guiding means (66) integral with the rotary drum (12) guide the light from the light-emitting means (42) to the light-receiving means (44) through a light passage (30c) defined on the annular surface (30a). The unwinding of yarn from the rotary drum (12) is determined on the basis of the light dimming resulting from the yarn transiting on the light passage (30c).

Publication: [EP 2907907 A1 20150819](#)

Applicant: L.G.L. Electronics S.p.A., Via Ugo Foscolo, 156, 24024 Gandino (Bergamo), IT

Inventor: Bertocchi, Giorgio, Via G. Leopardi, 1, I-24026 Leffe (BG), IT; Varischetti, Mauro, Vicolo Doana Ferretti, 9, I-24024 Gandino (BG), IT; Zenoni, Pietro, Via Montegrappa, 3, I-24026 Leffe (BG), IT

Prio: IT 20140213 TO20140119

Appl.No: EP14003809

IPC: D04B 15/48 2006.01 (IA)

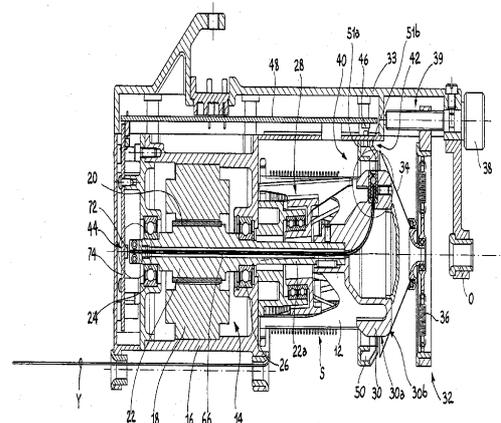


Fig. 2

Yarn-unwinding sensor for storage yarn feeders with rotary drum

A yarn feeder is provided with a motorized, yarn-winding rotary drum (12) which is rotatable with respect to a motor-housing (16) and is adapted to have a plurality of yarn loops (Y) wound on itself, which are adapted to be unwound upon request from a downstream machine. A sensor comprises light-emitting means (42) and light-receiving means (44), at least one of which is to be fixed to the rotary drum (12), which operatively define a light connection passing through a detection area (30c) of the rotary drum (12) which is adapted to be repeatedly engaged by the yarn during its rotational unwinding movement. The unwinding of yarn from the rotary drum is determined on the basis of the variation of light resulting from the yarn (Y) transiting on the detection area (30c).

Publication: [EP 2907908 A1 20150819](#)

Applicant: L.G.L. Electronics S.p.A., Via Ugo Foscolo, 156, 24024 Gandino (Bergamo), IT

Inventor: Bertocchi, Giorgio, Via G. Leopardi, 1, I-24026 Leffe (BG), IT; Varischetti, Mauro, Vicolo Doana Ferretti, 9, I-24024 Gandino (BG), IT; Zenoni, Pietro, Via Montegrappa, 3, I-24026 Leffe (BG), IT

Prio: IT 20140213 TO20140120

Appl.No: EP14003877

IPC: D04B 15/48 2006.01 (IA)

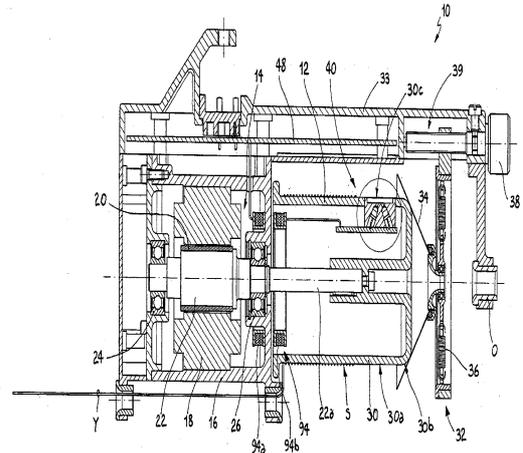


Fig. 1

Assembly for the continuous production of a woven material

Anlage zur kontinuierlichen Herstellung einer Spinnvliesbahn aus Filamenten, mit zumindest einer Spinnerette, einer Kühlkammer, einer Verstreckeinheit und einer Ablageeinrichtung zur Ablage der Filamente zur Spinnvliesbahn. Zwischen der Verstreckeinheit und der Ablageeinrichtung ist zumindest eine Filamentführungseinrichtung mit einer Mehrzahl zur Verstreckeinheit hin offenen Filamentführungsspalten vorgesehen. Die Filamentführungseinrichtung bzw. zumindest eine Führungskomponente der Filamentführungseinrichtung ist mit der Maßgabe bewegbar, dass die Filamentführungsspalte bzw. ihre verstreckeinheitsseitigen Öffnungen verlagert werden, insbesondere quer zur Förderrichtung der Spinnvliesbahn verlagert werden, so dass den entlang der bzw. durch die Filamentführungsspalte geführten Filamente bzw. Filamentbündeln bei der Ablage auf der Ablageeinrichtung eine Querorientierung bezüglich der Förderrichtung der Spinnvliesbahn auferlegt wird.

Publication: [EP 2907909 A1 20150819](#)

Applicant: Reifenhäuser GmbH & Co. KG
Maschinenfabrik, Spicher Straße 46-48, 53844 Troisdorf, DE

Inventor: Goretzki, Felix, Kölner Straße 33b), 53840 Troisdorf, DE; Sommer, Sebastian, Goethestraße 3, 53844 Troisdorf, DE; Özgören, Emnin, Im Schonsfeld 28, 53844 Troisdorf, DE; Klein, Alexander, Auf dem Langert 1, 57589 Pracht, DE; Markes, Harald, Im Born 10, 53572 Bruchhausen, DE

Prio:

Appl.No: EP14155442

IPC: D04H 3/005 2012.01 (IA)

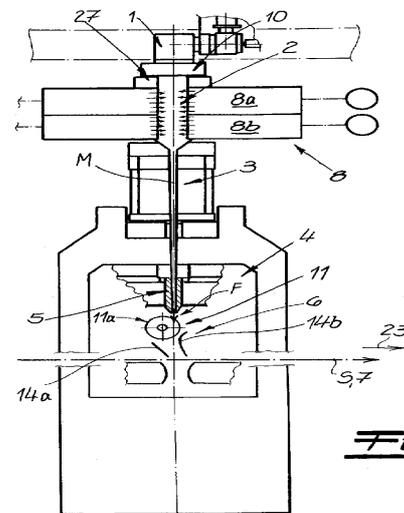


Fig. 1

REINFORCING FIBER/RESIN FIBER COMPOSITE FOR PRODUCTION OF CONTINUOUS-FIBER-REINFORCED THERMOPLASTIC RESIN COMPOSITE MATERIAL AND PROCESS FOR MANUFACTURING SAME

The present invention provides a technique for impregnating a continuous fiber with a thermoplastic resin having a high melt viscosity in a short time, and thereby enables short-cycle molding of a continuous-fiber-reinforced thermoplastic resin composite material. The present invention pertains to a reinforcing fiber/resin fiber composite (10) which is to be used for the production of a continuous-fiber-reinforced thermoplastic resin composite material and which is characterized in that: the composite (10) comprises a continuous fiber bundle (1) and a thermoplastic resin fiber (cover (2)) which covers the periphery of the continuous fiber bundle (1) in such a state that the continuous fiber bundle (1) is not constricted; and the continuous fiber bundle (1) can be flattened. The present invention also pertains to a process for manufacturing the same.

Publication: [EP 2910596 A1 20150826](#)

Applicant: Gifu University, 1-1, Yanagido, Gifu-shi Gifu 501-1193, JP

Inventor: OHTANI Akio, c/o Gifu University 1-1 Yanagido, Gifu-shi Gifu 501-1193, JP; NAKAI Asami, c/o Gifu University 1-1 Yanagido, Gifu-shi Gifu 501-1193, JP

Prio: JP 20121017 2012229891

Appl.No: EP13847431

IPC: C08J 5/04 2006.01 (IA)

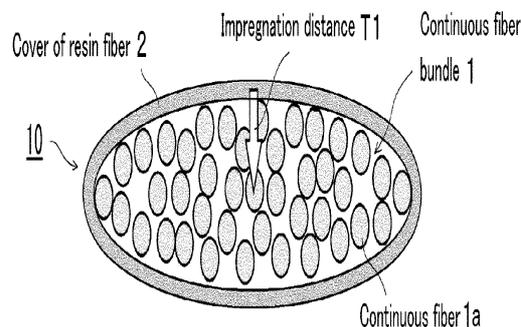


Figure 1

FABRIC MANUFACTURING METHOD, MANUFACTURING CONTROL METHOD, MANUFACTURING CONTROL DEVICE AND MANUFACTURING SYSTEM

Disclosed are a fabric manufacturing method, a manufacturing control method, a manufacturing control device and a manufacturing system, wherein the fabric manufacturing method comprises the steps of: obtaining information of a fabric function area setting performed using human morphology information, motional force analysis data and heat and moisture analysis data, wherein the information of the fabric function area setting comprises fabric function area type information; calling a corresponding relationship between the fabric function area type information and knitting member information, wherein the knitting member information comprises knitting stitch structure information and knitting action information; and performing integrated forming and seamless knitting of the fabrics according to the control instructions corresponding to the knitting stitch structure information and the knitting action information. The present invention achieves the technical effects, such as strengthening the supporting and protecting effect of the fabrics on moving human bodies and improving the ductility and wearing comfort of the fabrics.

Publication: [EP 2910671 A1 20150826](#)

Applicant: AC Carpi Apparel Company Ltd., Flat H 6/F Phase 2 Kwai Shing Ind.Bldg. 42-46 Tai Lin Pai Rd. Kwai Chung, Hong Kong, CN

Inventor: LIU, Rong, Flat H 6/F Phase 2 Kwai Shing Ind.Bldg. 42-46 Tai Lin Pai Rd. Kwai Chung, Hong Kong, CN; CHU, Amy, Flat H 6/F Phase 2 Kwai Shing Ind.Bldg. 42-46 Tai Lin Pai Rd. Kwai Chung, Hong Kong, CN

Prio: CN 20120929 201210379627

Appl.No: EP12885383

IPC: D04B 1/22 2006.01 (IA)

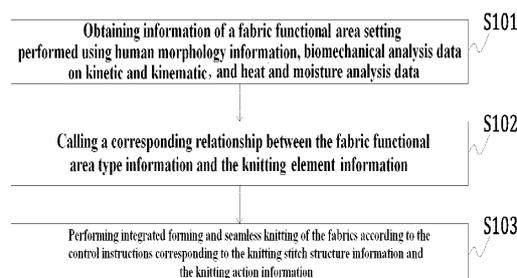


Figure 1a

Sarking board

Die vorliegende Erfindung handelt von einer Unterdeckplatte, wobei eine oder beide Oberflächen der Unterdeckplatte hydrophobe Eigenschaften aufweisen.

Publication: **EP 2910672 A1 20150826**

Applicant: Sandler AG, Lamitzmühle 1, 95126
Schwarzenbach/Saale, DE

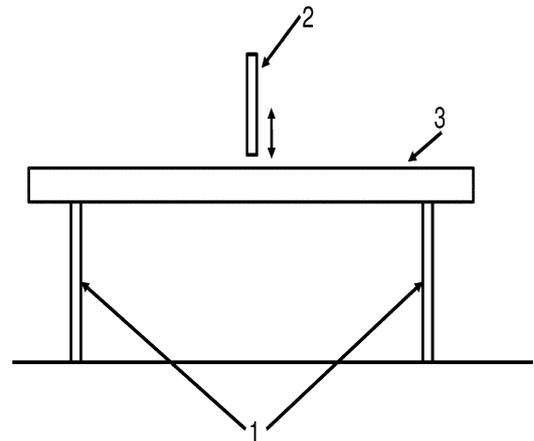
Inventor: NICHTNENNUNG

Prio: DE 20140212 102014001782

Appl.No: EP15154110

IPC: D04H 1/4291 2012.01 (IA)

Fig. 1



MACHINE FOR THE PRODUCTION OF A FINISHED NON-WOVEN

Maschine zum kontinuierlichen Herstellen eines Vliesstoffes, umfassend ein Spun-bondturm (1 bis 4), die Fäden in einer Bahn auf einem Förderband (6) ablegt, und eine Vorrichtung (7, 8, 11, 12) zum Verfestigen der Bahn durch Wasserstrahlen, gekennzeichnet durch ein Mittel (15, 16) zum Auspressen der Feuchtigkeit, in Bewegungsrichtung der Bahn nachgelagert zur Vorrichtung (7, 8, 11, 12) zum Verfestigen, und durch eine Vorrichtung (17) zum Aufbringen eines Produkts auf die Bahn, nachgelagert zum Mittel (15, 16) zum Auspressen, wobei das Mittel zum Auspressen aus einem zweiten Förderband (15) besteht, auf dem die Bahn vorbeiläuft, und zwischen dessen oberem und unterem Trum eine Unterdruckvorrichtung (16) vorhanden ist.

Publication: **EP 1682713 B1 20150805**

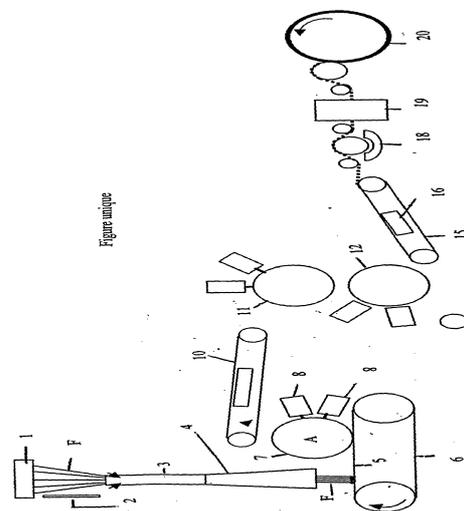
Applicant: ANDRITZ Perfojet SAS, Z.A. Pré-Millet, 38330
Montbonnot, FR

Inventor: NOELLE, Frédéric, 674 Chemin du Pré de
l'Achard, F-38330 Saint Nazaire les Eymes, FR

Prio: FR 20031031 0312794

Appl.No: EP4805310

IPC: D04H 1/46 2012.01 (IA)



PROCESS FOR PRODUCING WEFT KNITTED FABRIC INCLUDING POLYURETHANE ELASTOMER FIBER

Verfahren zur Herstellung von Kulierware, die ein Polyurethanelastomerfilament enthält, wobei das Verfahren durch das Plattieren eines bloßen Garns aus leicht schmelzbarem, alkalibeständigem Polyurethanelastomerfilament mit zumindest 50 % Festigkeitsretention nach 45-sekündiger Trockenwärmebehandlung bei 100 % Dehnung bei 150 °C, einem Schmelzpunkt von 180 °C oder weniger und zumindest 60 % Festigkeitsretention nach 60-minütiger Behandlung in einer 2 g/l wässrigen Natriumhydroxidlösung bei 100 % Dehnung bei 100 °C als Plattierungsgarn an jeder Masche von Kulierware mit einer 1x1-Rippstrickstruktur aus zumindest einer Art von nicht elastomerem Garn und das anschließende Thermofixieren der plattierten Struktur zum thermischen Verschmelzen der leicht schmelzbaren, alkalibeständigen Polyurethanelastomerfilamente miteinander oder mit den nicht elastomeren Garnen an deren Kreuzungspunkten gekennzeichnet ist.

Publication: [EP 1754814 B1 20150819](#)

Applicant: Nisshinbo Textile Inc., 31-11, Nihonbashi Ningyocho 2-chome Chuo-ku, Tokyo 103-8650, JP; GUNZE LIMITED, 1, Zeze, Aono-cho, Ayabe-shi, Kyoto 623-8511, JP

Inventor: FUKUOKA, Kunihiro, Nisshino Industries, Inc., Tokushima Plant, 6 35, Nakashima, Kawauchi-cho, Tokushima-shi Tokushima 771-0143, JP; NISHIO, Koji, Nisshino Industries, Inc., Tokushima Plant, 6 35, Nakashima, Kawauchi-cho, Tokushima-shi Tokushima 771-0143, JP; YAMAHARA, Seiji, UNZE LIMITED, 262, So, Miyazu-shi, Kyoto 626-0043, JP; YAMAZAKI, Takahiro, GUNZE LIMITED, 2138, Kuse, Maniwa-shi, Okoyama 719-3201, JP; MARUOKA, Takashi, UNZE LIMITED, 262, So, Miyazu-shi, Kyoto 626-0043, JP; YAMASAKI, Fumiyuki, GUNZE LIMITED, 2138, Kuse, Maniwa-shi, Okoyama 719-3201, JP; KIBUNE, Susumu, GUNZE LIMITED, 262, So, Miyazu-shi, Kyoto 626-0043, JP; SUZUOKI, Tsutomu, GUNZE LIMITED, 186, Gakuonji, Santocho, Asago-shi Hyogo 669-5152, JP; SOUDA, Shigeo, GUNZE LIMITED, 262, So, Miyazu-shi, Kyoto 626-0043, JP; YAMAMOTO, Taisuke, GUNZE LIMITED, 186, Gakuonji, Santocho, Asago-shi Hyogo 669-5152, JP; KIMURA, Kouji, GUNZE LIMITED, 186, Gakuonji, Santocho, Asago-shi Hyogo 669-5152, JP; TABATA, Shinobu, GUNZE LIMITED, 186, Gakuonji, Santocho, Asago-shi Hyogo 669-5152, JP
JP 20040609 2004171806

Prio: JP 20040609 2004171806

Appl.No: EP5748854

IPC: D04B 1/18 2006.01 (IA)

FIG.1

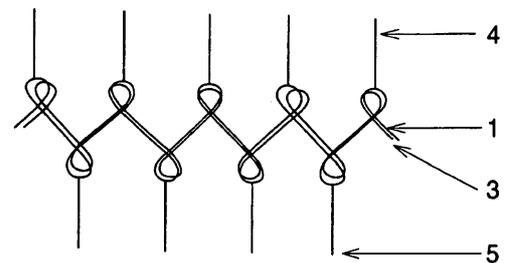
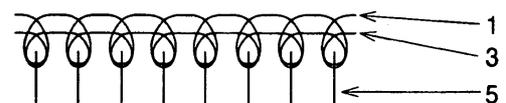


FIG.2



FIBRE COMPOSITE THAT CAN BE DISSOLVED OR DECOMPOSED IN WATER, AND PRODUCTS THEREOF

Faserverbund, umfassend oder bestehend aus natürlichen und/oder synthetischen Fasern, wobei zumindest ein Teil der Fasern des Verbundes einen flachen Querschnitt aufweist, wobei die Fasern mit einem flachen Querschnitt gekennzeichnet sind durch eine Schnittlänge zwischen 4 und 75 mm, bevorzugt zwischen 20 und 50 mm und der Faserverbund in Wasser oder anderer Flüssigkeit leicht zersetzbar bzw. auflösbar ist, gekennzeichnet durch ein Breiten-Längenverhältnis der Seitenkanten eines Querschnittes der Fasern zwischen 1:4 und 1:8.

Publication: [EP 1893799 B1 20150812](#)

Applicant: Kelheim Fibres GmbH, Regensburger Strasse 109, 93309 Kelheim, DE

Inventor: BRUNNER, Konrad, Am Hohenrain 4, 93309 Kelheim, DE; HERBIG, Friedrich, Chamer Strasse 70, 93057 Regensburg, DE; ROGGENSTEIN, Walter, Elsterweg 6, 93077 Bad Abbach, DE; SULZMAIER, Stefan, Am Pfaffenberg 12, 93077 Bad Abbach, DE

Prio: DE 20050615 102005027795, DE 20050623 102005029597

Appl.No: EP6763719

IPC: B32B 5/02 2006.01 (IA)

Fig. 1

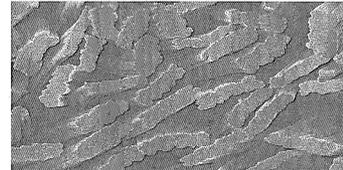
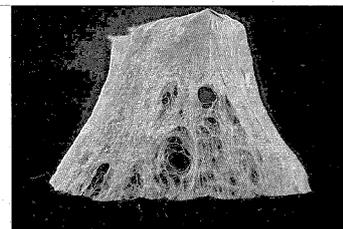


Fig. 2



METHOD OF FABRICATION OF REINFORCED STRUCTURES

Verfahren zum Herstellen von verfestigten gelegten Strukturen aus Garnen, dadurch gekennzeichnet, dass während des Ablegeverfahrens auf die Garne über ihre gesamte Länge ein thermisch schmelzbares Material über ein thermisches Spritzverfahren aufgebracht wird, wonach die Garne zusammengeführt werden, während sich das über das thermische Spritzverfahren aufgebrachte thermisch schmelzbare Material noch in einem plastischen beziehungsweise geschmolzenen Zustand befindet.

Publication: [EP 1994213 B1 20150812](#)

Applicant: Toho Tenax Europe GmbH, Kasinostrasse 19-21, 42103 Wuppertal, DE

Inventor: WOHLMANN, Bernd, Erikastrasse 9, 40267 Düsseldorf, DE; WÖGINGER, Andreas, Brunhildenstrasse 55, 42287 Wuppertal, DE

Prio: EP 20060303 06004297, EP 20061201 06024883

Appl.No: EP7711672

IPC: D04H 3/12 2006.01 (IA)

HYDROENTANGLED PRODUCT COMPRISING CELLULOSE FIBERS

Verfahren zur Herstellung eines wasserstrahlverfestigten Produkts, enthaltend cellulosische Fasern, welches Verfahren die folgenden Schritte umfasst: (a) das Extrudieren einer Lösung, die in einem wässrigen tertiären Aminoxid gelöste Cellulose umfasst, durch eine Spinn Düse in einen Luftspalt, wodurch Filamente gebildet werden (b) das Verstrecken dieser Filamente mittels eines Gasstroms (b') das Kontaktieren der Filamente in dem Luftspalt mit einem Medium, das die Filamente zumindest teilweise koaguliert. (c) das Sammeln und Ausfällen dieser Filamente zwecks Bildung eines Vlieses (d) das Verfestigen des Vlieses mittels eines Wasserstrahlverfestigungsverfahrens.

Publication: [EP 2013390 B1 20150819](#)

Applicant: LENZING AKTIENGESELLSCHAFT, Werkstrasse 2, 4860 Lenzing, AT

Inventor: WHITE, Pat, 51 Park View, Sharnford, Leics LE10 3PT, GB; HARMS, Haio, Schiffernerstrasse 16, A-4810 Gmunden, AT; HAYHURST, Malcolm, 251 Nuneaton Road, Bulkington, Warwickshire CV12 9RZ, GB

Prio: AT 20060428 7282006

Appl.No: EP7718408

IPC: D04H 1/42 2012.01 (IA)

A METHOD OF FABRICATING TEXTILES

Verfahren zum Fertigen einer Textilrohware, mit den Schritten: - Vorbereiten einer ersten Vielzahl von Baumwollfäden; - Vorbereiten einer zweiten Vielzahl von baumwollfreien Fäden; wobei die erste Vielzahl der Baumwollfäden und die zweite Vielzahl der baumwollfreien Fäden Kettfäden zum Kettenwirken einer Textilrohware bilden; - Kettenwirken der Textilrohware; - Bilden einer Webkante der Textilrohware durch Vermaschen wenigstens eines Teiles der ersten Vielzahl der Baumwollfäden; wobei ein Anteil der Baumwollfäden wenigstens 65% beträgt; und gekennzeichnet durch - Legen eines Baumwollgewirks, das zwei Zonen hat, mit einer Rapportlänge von 2, wobei insbesondere die Grundlegebarren GB1: 1 - 2/ 1 - 0// und GB2: 3 - 1 / 0 - 2// sind; wobei der Einzug von Kettfäden eine Rapportbreite von 53 hat und insbesondere GB1: A...AAAAAAAAAAAAA.AAAAAAAAAAAAAAAAAAAAAA. AAAAAAAAAAAAA GB2: C...BBBBBDCCCCBCCCCDBBBBBBBBDCCCCBCC CCCCDBBBBB.. wobei " " leer bedeutet, d.h. ohne Faden; und A, B, C oder D ein Material des Typs A, des Typs B, des Typs C oder des Typs D bedeutet.

Publication: [EP 2162576 B1 20150819](#)

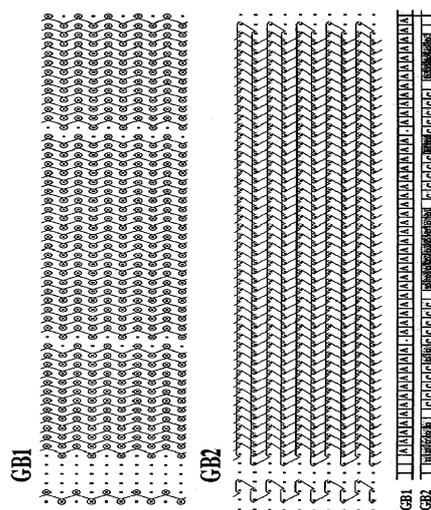
Applicant: Penn Textile Solutions GmbH, An der Talle 20, 33102 Paderborn, DE

Inventor: REGENSTEIN, Markus, Dubelohstrasse 192, 33104 Paderborn, DE; SVIDSKAIA, Nadja, Dicke Riege 3a, 33104 Paderborn, DE

Prio:

Appl.No: EP7765047

IPC: D04B 21/18 2006.01 (IA)

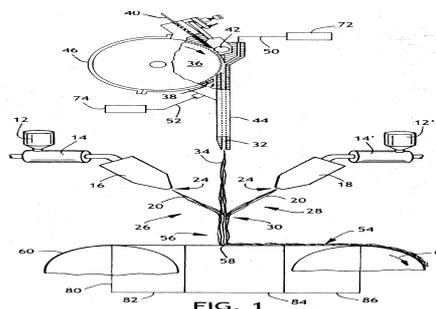


FIBROUS NONWOVEN STRUCTURE HAVING IMPROVED PHYSICAL CHARACTERISTICS AND METHOD OF PREPARING

Faservliesstruktur (54), umfassend: wenigstens ein schmelzgesponnenes Fasermaterial (24), wobei das wenigstens eine schmelzgesponnene Fasermaterial (24) einen mittleren Durchmesser von 0,5 bis 40 µm aufweist; wenigstens ein sekundäres Fasermaterial (32), wobei ein Gewichtsverhältnis des wenigstens einen sekundären Fasermaterials (32) zu dem wenigstens einen schmelzgesponnenen Fasermaterial (24) zwischen 40:60 und 90:10 liegt; dadurch gekennzeichnet, dass eine Undurchsichtigkeit der Faservliesstruktur (54) größer ist als 72 Prozent und ein Grundgewicht zwischen 35 g/m² und weniger als 55 g/m² beträgt.

Publication: [EP 2265756 B1 20150819](#)

Applicant: KIMBERLY-CLARK WORLDWIDE, INC., 401 North Lake Street, Neenah, WI 54956, US



Inventor: HARVEY, James, Benjamin, 663 Dogwood Drive, Spring City Tennessee 37381, US; GAMBARO, Anthony, Mark, 401 E. Fernwood Lane, Appleton Wisconsin 54913, US; GILES, Paul, Alan, 4493 Windsor Oaks Circle, Marietta Georgia 30066, US; BAER, David, Jon, 3473 Eichstadt Road, Oshkosh Wisconsin 54901, US; VATER, Allen, Frederic, 4033 Oakview Court, Alpharetta Georgia 30005, US
Prio: US 20080317 69939 P, US 20090311 402131
Appl.No: EP9721320
IPC: D04H 3/02 2006.01 (IA)

FIBROUS SHEET

Faserbahn, das eine Gaze und ein auf der Gaze laminiertes Faservlies umfasst, wobei: die Gaze eine Ketten-Feinheit von 50/9 bis 400/9 dtex (5 bis 40 Deniers), eine Ketten-Dichte von 40 bis 100 Ketten/2,54 cm (40 bis 100 Ketten/Zoll), eine Schuß-Feinheit von 50/9 bis 400/9 dtex (5 bis 40 Deniers) und eine Schuß-Dichte von 20 bis 100 Schüsse pro 2,54 cm (20 bis 100 Schüsse/Zoll) aufweist; das Faservlies aus einem schmelz-geblasenen Faservlies oder einem Spinnfaservlies, mit einer Feinheit von 40/9 dtex (4,0 Deniers) oder weniger, hergestellt ist; und die Faserbahn ein Basisgewicht von 7,5 bis 20 g/m² aufweist.

Publication: [EP 2266791 B1 20150812](#)

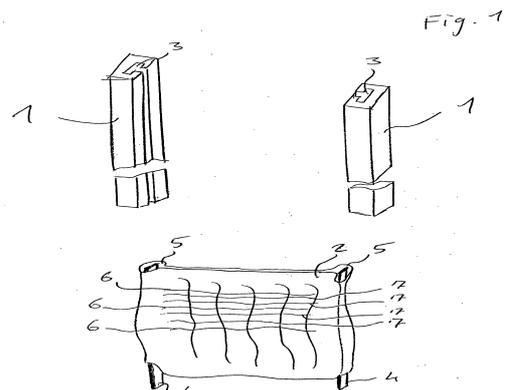
Applicant: Ohki Co., Ltd., 7-2, Bakuromachi 1-chome Chuo-ku, Okasa-shi Osaka 541-0059, JP
Inventor: MIYAHARA, Fumio, c/o OHKI Co. Ltd. 7-2, Bakuromachi 1-chome Chuo-ku, Osaka-shi Osaka 541-0059, JP; SAITOH, Mitsunori, c/o OHKI Co. Ltd. 7-2, Bakuromachi 1-chome Chuo-ku, Osaka-shi Osaka 541-0059, JP; YAMAGUCHI, Naoko, c/o OHKI Co. Ltd. 7-2, Bakuromachi 1-chome Chuo-ku, Osaka-shi Osaka 541-0059, JP
Prio: JP 20080418 2008109634
Appl.No: EP9733575
IPC: B01D 39/16 2006.01 (IA)

Cover for seats or beds

Bespannung (2), insbesondere für Sitzmöbel oder Liegemöbel, mit einer Textilie, die aus einem Verbund aus Fäden (6, 7) gewebt, gewirkt oder gestrickt ist und die eine Fläche ausbildet; wobei der Verbund aus Fäden (6, 7) einen ersten unter Wärmezufuhr schrumpfenden Faden (6) aufweist; wobei der Verbund aus Fäden (6, 7) einen zweiten unter Wärmezufuhr schrumpfenden Faden (7) aufweist, der elastisch ist, mit einer gegenüber der Elastizität des ersten unter Wärmezufuhr schrumpfenden Fadens (6) erhöhten Elastizität, dadurch gekennzeichnet, dass der zweite Faden (7) bei derselben Schrumpfungstemperatur einer kleineren oder derselben prozentualen Schrumpfung wie der erste Faden (6) unterliegt.

Publication: [EP 2319967 B1 20150812](#)

Applicant: H.R. Rathgeber GmbH & Co. KG, Weberstrasse 15, 89542 Herbrechtingen, DE
Inventor: Rathgeber, Lutz, Oggenhauser Str. 50, 89537 Giengen, DE
Prio: DE 20091104 102009051867
Appl.No: EP10014233



IPC: D03D 15/00 2006.01 (IA)

Polymeric composites having enhanced reversible thermal properties and methods of forming thereof

Verfahren zum Herstellen eines polymerischen Komposits, umfassend: Mischen einer Vielzahl von Mikrokapseln, die ein Phasenwechselmaterial enthalten, mit einem dispergierenden polymerischen Material, um eine erste Mischung zu bilden, wobei das dispergierende polymerische Material eine latente Wärme von wenigstens 40 J/g und eine Umwandlungstemperatur in dem Bereich von 0 °C bis 50 °C hat; und Verarbeiten der ersten Mischung, um das polymerische Komposit zu bilden.

Publication: **EP 2392712 B1 20150826**

Applicant: Outlast Technologies LLC, 831 Pine Ridge Road, Golden, CO 80403, US

Inventor: Hartmann, Mark Henry, 256 Rockview Driver, Superior, CO 80027, US; Magill, Monte C., 3500 35th Avenue No. 79, Greeley, CO 80634, US

Prio: US 20050311 78656

Appl.No: EP10182697

IPC: D04H 1/00 2006.01 (IA)

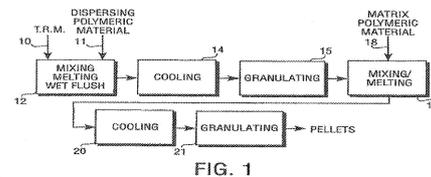


FIG. 1

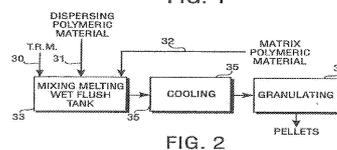


FIG. 2

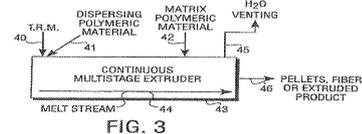


FIG. 3

Guide needle assembly for a Jacquard guide bar and Jacquard guide bar

Legenadelanordnung (1) für eine Jacquard-Legebarre (11) mit einem Träger (2), mehreren Legenadeln (3), die am Träger (2) angeordnet sind, wobei jede Nadel (3) mit mindestens einem Versatzantrieb (5) versehen ist, und einer Treibereinrichtung (6), die mit den Versatzantrieben (5) elektrisch verbunden ist, wobei die Treibereinrichtung (6) lösbar mit dem Träger (2) verbunden ist, dadurch gekennzeichnet, dass jeder Versatzantrieb (5) mindestens einen Federkontakt (27-29) aufweist, an dem die Treibereinrichtung (6) mit einer Kontaktfläche (33) anliegt.

Publication: **EP 2428602 B1 20150826**

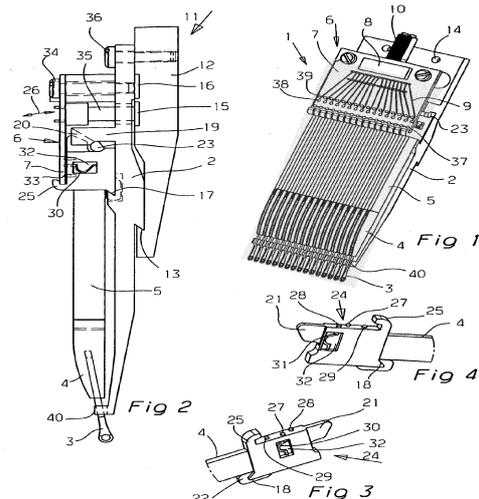
Applicant: Karl Mayer Textilmaschinenfabrik GmbH, Brühlstrasse 25, 63179 Obertshausen, DE; Johnson Matthey Catalysts (Germany) GmbH, Bahnhofstraße 43, 96257 Redwitz, DE

Inventor: Ballas, Rüdiger, Dr., Diefenbachweg 4, 64625 Bensheim-Auerbach, DE; Zimmermann, Matthias, Sudetenstrasse 38, 63110 Rodgau, DE; Klump, Stefan, Gustav-Heinemann-Str. 32, 96215 Lichtenfels, DE; Rüttel, Martin, St.-Marien-Str. 16, 96271 Grub am Forst, DE; Kremer, Hubertus, Schlegelheid 3, 96349 Steinwiesen, DE; Günther, Jürgen, Haushofring 20, 96342 Stockheim, DE

Prio:

Appl.No: EP10009428

IPC: D04B 27/32 2006.01 (IA)



In-line printing process on wet non-woven fabric and products thereof

In-line-Verfahren zur Herstellung eines Vliesstoffs, der auf seiner Oberfläche verteilt Elemente mit einer körperlichen Abmessung aufweist, umfassend das Siebdrucken einer gewünschten Form auf einem nassen Vliesstoff unter Verwendung einer thixotropen Pastenformulierung, die ein Polymer, ein Vernetzungsmittel, ein Oberflächenspannungsmodifiziermittel und ein Blähmittel umfasst; wobei das Verfahren dadurch gekennzeichnet ist, dass die gedruckte Pastenformulierung sich unter Erwärmen aufgrund des darin enthaltenen Blähmittels ausdehnt.

Publication: [EP 2444547 B1 20150812](#)

Applicant: N.R. Spuntech Industries Ltd., P.O. Box 3328, 14133 Upper Tiberias, IL

Inventor: Van Mil, Jan, ---, 37825 Givat Nili, IL; Broshi, Ron, 156 Erez Street, 76885 Gealya, IL

Prio: US 20101019 394407 P

Appl.No: EP11184612

IPC: D06M 15/227 2006.01 (IA)

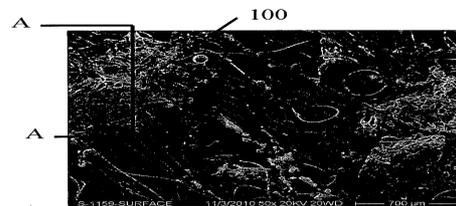


Fig. 1A

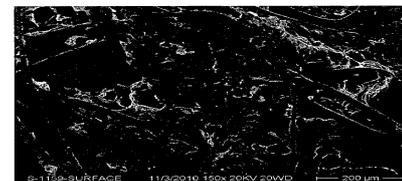


Fig. 1B

BONDED WEB AND MANUFACTURING THEREOF

Ein verfestigtes Vlies, das Fäden enthält, die ein erstes Polymermaterial mit einer ersten Schmelztemperatur enthalten, und ein zweites Polymermaterial mit einer zweiten Schmelztemperatur, die höher ist, als die erste Schmelztemperatur, wobei das besagte verfestigte Vlies - ein Neck-down-Modul in Querrichtung von zumindest 800 N/m aufweist, - eine Dehnbarkeit in Querrichtung von zumindest 70% des Messwerts laut DIN EN 29073-3 aufweist, und - eine Reißfestigkeit in Querrichtung von höchstens 4 N/cm des Messwerts laut DIN EN 29073-3 aufweist, und wobei die Verfestigungen durch Kalandrieren bei einer Kalandriertemperatur zwischen der Haftgrenze und der Standard-Kalandriertemperatur durchgeführt wird, die jener Temperatur entspricht, bei der das verfestigte Vlies mit der größten Reißfestigkeit in der Maschinenlaufrichtung gebildet wird.

Publication: [EP 2524077 B1 20150812](#)

Applicant: Fitesa Nonwoven, Inc., 840 S.E. Main Street, Simpsonville, SC 29681, US; Fitesa Germany GmbH, Woltorfer Strasse 12, 31224 Peine, DE

Inventor: BURKHART, Thomas, Amselstr. 7, 66994 Dahn, DE; DANIELS, Walter D., 8790 Landen Drive, Maineville Ohio 45039, US; HARTL, Helmut, Bischofsburgweg 4, 38124 Braunschweig, DE; LU, Jonathan A., 2135 Fulton Avenue, Cincinnati Ohio 45206, US; KONG, Deying, 13210 SE 7th St. C 17, Vancouver Washington 98683, US; NEWKIRK, David Dudley, 107 Gladstone Way, Greer South Carolina 29650, US; TURNER, Robert H., 331 Warren Avenue, Cincinnati Ohio 45220, US; REYNOLDS, Lisa, 572 Linden Creek, Morrow Ohio 45152, US; DEBEER, Tonny, 10131 Fox Chase Drive, Loveland Ohio 45140, US

Prio: US 20100112 294374 P

Appl.No: EP11704864

IPC: D04H 3/16 2006.01 (IA)

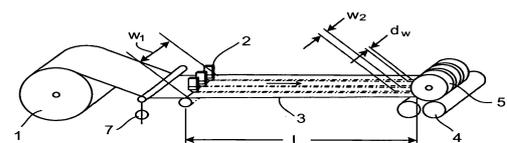


FIG. 1

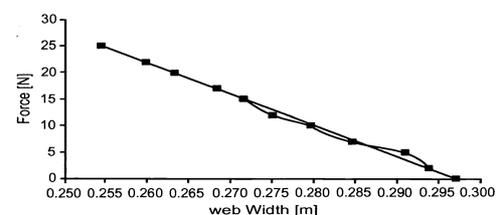


FIG. 2

A process for of adjusting the size of knitted articles under production in circular knitting machines for knitwear or hoisery

Verfahren zur Einstellung der Größe von Strickwaren, die an Rundstrickmaschinen für Strickwaren und Strumpfwaren hergestellt werden, umfassend die folgenden Schritte: - Vorbereiten mindestens einer Rundstrickmaschine (1) für Strickwaren oder Strumpfwaren, umfassend mindestens: eine Tragstruktur (2); einen Zylinder (3) der Nadeln (4), der in der Tragstruktur (2) drehbar montiert ist; eine Vielzahl von Nadeln (4), die durch den Zylinder (3) getragen sind und parallel zu einer Drehachse des Zylinders (3) zur Herstellung einer Strickware beweglich sind; eine Vielzahl von Maschennocken (7), die auf die benannten Nadeln (4) wirken und wahlweise und einzeln beweglich sind, so daß jeder die Größe der von den Nadeln (4) selbst erzeugten Maschen an einer entsprechenden Garnzuführungsstellung (10) eines Garns (9) ändern kann, wobei jeder Maschennocken (7) unabhängig vom anderen ist, eine erste Vielzahl von passiven Zuführungen (8) für den Garn (9) mit feststehender Trommel, wobei jeder davon zum Zuführen des Garns (9) nach dem Abwickeln von der feststehenden Trommel zu den benannten Nadeln (4) an einer entsprechenden Zuführungsstellung (10) und einem entsprechenden Maschennocken (7) der benannten Maschennocken (7) wirkt; eine Steuervorrichtung (11) der Funktion der Strickmaschine (1); und elektrische und elektronische Mittel (12), die mit der Steuervorrichtung (11) verbunden sind und zur Steuerung einer Funktion einer Vielzahl von Bestandteilen der Strickmaschine (1) und zur Erfassung einer Vielzahl von Betriebsparametern der Funktion der Strickmaschine (1) wirken; - Definieren einer Strickware (6), die an der Strickmaschine (1) hergestellt werden soll, wobei die benannte Strickware (6) geteilt ist, indem mindestens zwei Strickbereiche (6a, 6b) der benannte Strickware (6) oder eine Vielzahl von aufeinanderfolgenden Strickbereichen (6a, 6b) der benannten Strickware (6) definiert sind, wobei jeder einem jeweiligen Abschnitt von Strickgewebe ent... (+2488)

Publication: [**EP 2532776 B1 20150819**](#)

Applicant: SANTONI S.p.A., Via Carlo Fenzi, 14, 25135
Brescia, IT

Inventor: Lonati, Tiberio, Via Sera, 24, 25128 BRESCIA, IT

Prio: IT 20110608 MI20111030

Appl.No: EP12169736

IPC: D04B 15/32 2006.01 (IA)

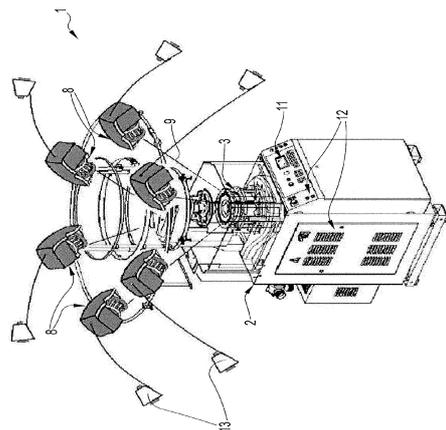


FIG.1

FABRIC SHEET COMPRISING UPRIGHT LOOPS

Textiles Flächengebilde in Form einer Kettenwirkware mit stehenden Schlingen für einen Klettverschluss vom Haken- und Schlingentyp, bei dem aus Garnfäden Masche und Schlinge als Einheit dadurch ausgebildet sind, indem in jeder fortlaufenden Masche in Längsrichtung sowie in Querrichtung gleichzeitig Schlingen vorliegen, dadurch gekennzeichnet, dass eine Maschendichte im Bereich von 2500-7500 Maschen/dm² bei einer Maschenlänge im Bereich von 0,5 - 2,0mm mit einem Flächengewicht von 5 bis 15 g/m² vorgesehen ist.

Publication: [**EP 2748361 B1 20150826**](#)

Applicant: Mattes & Ammann GmbH & Co. KG,
Brühlstrasse 8, 72469 Messstetten (Tieringen),
DE

Inventor: LARSEN, Christoph Sven, Nackstraße 34,
72469 Meßstetten, DE

Prio:

Appl.No: EP11788814

IPC: D04B 21/04 2006.01 (IA)

DESK

Arbeitstisch mit: a) einem Untergestell (1), auf dem eine Tischplatte (3) ruht, die eine Oberseite (30) und eine Unterseite (31) besitzt; b) einer Elektroinstallation (7) zum Anschluss zu- und abführender Stromversorgungs- und/oder Kommunikationskabel; und c) einem unter der Tischplatte (3) angeordneten Sammelbehälter (2) zur Aufnahme der Kabel und von Anschlussteilen, wobei das Sammelbehälter (2) eine Öffnung (29) aufweist, die mit einem wiederholt betätigbaren Verschlussmittel (21) versehen ist, dadurch gekennzeichnet, dass d) das Sammelbehälter (2) aus verdichtetem Vliesstoff besteht.

Publication: [EP 2755525 B1 20150819](#)

Applicant: Vitra Patente AG, Klünenfeldstrasse 22, 4132 Muttenz, CH

Inventor: KELLER, Markus, Mühlestrasse 46a, 79539 Lörrach, DE; LÖFFLER, Jürgen, Im Ried 6, 79282 Ballrechten-Dottingen, DE

Prio: CH 20110912 15032011

Appl.No: EP12729841

IPC: A47B 21/06 2006.01 (IA)

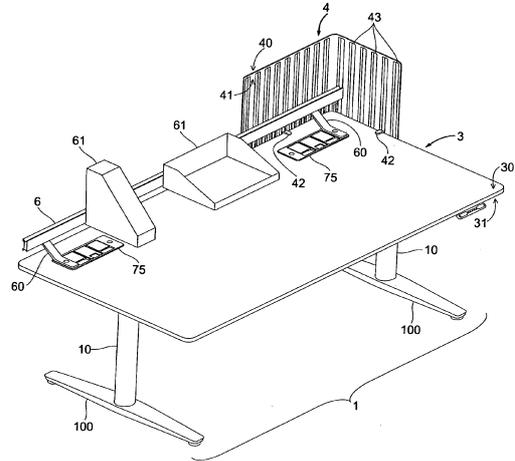


Fig. 1A

QUASI MELT BLOW DOWN SYSTEM

Meltblown-System (10), das Folgendes enthält: eine Matrizenanordnung (100; 240) mit mehreren dünnen Platten, die zusammengedrückt und zwischen gegenüberliegenden Stirnplatten (180, 182) befestigt sind; einen ersten Kanal in der Matrizenanordnung (100; 240), um ein erstes Fluid (F1) zu befördern; einen ersten Hohlraum (106), der zusammenhängend in einer oder mehreren der dünnen Platten gebildet ist und der an den ersten Kanal, der konfiguriert ist, das Fluid (F1) zu sammeln, fluidtechnisch gekoppelt ist, wobei der erste Hohlraum (106) einen Akkumulatorhohlraum definiert; eine erste Öffnung (136), um ein zweites Fluid (F2) durch die Matrizenanordnung (100; 240) zu befördern, die an eine zweite Öffnung (138) in der Matrizenanordnung durch zumindest einen Kanal fluidtechnisch gekoppelt ist; mehrere erste Schlitze (152) in der Matrizenanordnung (100, 240), die an die erste Öffnung (136) fluidtechnisch gekoppelt sind; mehrere zweite Schlitze (154) in der Matrizenanordnung, die an die zweiten Öffnungen (138) fluidtechnisch gekoppelt sind; und mehrere dritte Schlitze (156) in der Matrizenanordnung, die an den Akkumulatorhohlraum fluidtechnisch gekoppelt sind, wobei die dritten Schlitze (156) der mehreren dritten Schlitze (156) entlang eines ersten Wegs beabstandet sind und zumindest einer der ersten Schlitze der mehreren ersten Schlitze (152) und der zweiten Schlitze der mehreren zweiten Schlitze (154) abwechselnd zwischen den dritten Schlitzen (156) entlang des ersten Wegs positioniert sind.

Publication: [EP 2764142 B1 20150819](#)

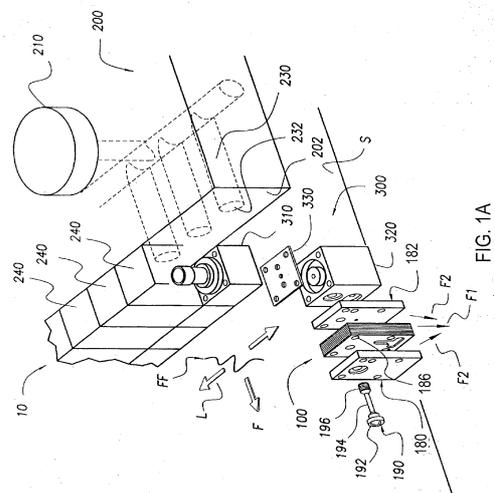
Applicant: Illinois Tool Works Inc., 155 Harlem Avenue, Glenview, IL 60025, US

Inventor: BUDAI, Michael B., c/o Illinois Tool Works Inc. 3600 West Lake Avenue, Glenview, IL 60026, US; BOLYARD, Jr., Edward W., c/o Illinois Tool Works Inc. 3600 West Lake Avenue, Glenview, IL 60026, US

Prio: US 20111003 201161542497 P, US 20120712 201213547685

Appl.No: EP12772687

IPC: B05C 5/02 2006.01 (IA)



Thermoelektrische Preformfixierung

Faservorformling-Fixiervorrichtung zur Fixierung eines Faservorformlings mit einer Faservorformling-Formgebungsvorrichtung (1) zur Ausformung eines Faservorformlings (2) (Preform) aus einem trockenen, elektrisch leitenden Fasermaterial enthaltenen oder aus ihnen bestehenden Faserhalbzeug, dadurch gekennzeichnet, dass mindestens eine isolierte Elektrode (3) in die geerdete Faservorformling-Formgebungsvorrichtung (1) integriert ist, zum Anlegen einer Spannung an zumindest einen Teil der Kohlenstofffasern des Faservorformlings.

Publication: [DE 102014001223 A1 20150813](#)

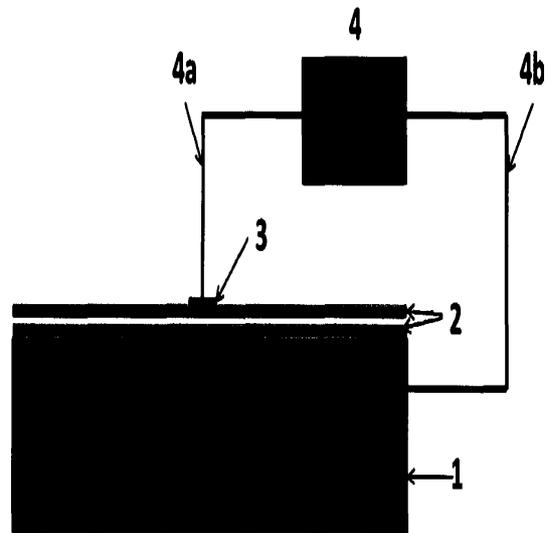
Applicant: Bjekovic, Robert, 89584, Ehingen, DE; Elwert, Michael, 88094, Oberteuringen, DE

Inventor: Elwert, Michael, 88094, Oberteuringen, DE; Bjekovic, Robert, Prof. Dr.-Ing., 89584, Ehingen, DE

Prio:

Appl.No:

IPC: D04H 3/00 2006.01 (IA)



Ablegekopf zum automatisierten Ablegen eines flächigen Materials, sowie Verwendung eines derartigen Ablegekopfes

Die Erfindung betrifft einen Ablegekopf zum automatisierten Ablegen eines flächigen Materials (M), z. B. eines textilen Halbzeuges zur Herstellung eines Faserverbundbauteils, auf eine Ablegefläche (3), umfassend eine Bevorratungseinrichtung (12) zur drehbaren Lagerung einer Vorratsrolle (14) von aufgewickeltem Material (M), und eine Förder- und Ablegeeinrichtung (20, 30) umfassend ein Führungs- und Antriebssystem (20) zum Abwickeln und Fördern von Material (M) von der Vorratsrolle (14) und ein Drapiersystem (30) umfassend eine Drapierwalze (32) zum Drapieren von zugeführtem Material (M) auf die Ablegefläche (3). Erfindungsgemäß ist im Verlauf der Breite der Drapierwalze (32) wenigstens eine Antriebseinheit (40) zum Drehantreiben der Drapierwalze (32) mittels eines am Umfang der Drapierwalze (32) angreifenden Treibriemens (42) vorgesehen. Damit wird vorteilhaft ein zuverlässiges automatisiertes Ablegen des Materials (M) insbesondere auch für vergleichsweise große Breiten des Materials (M) ermöglicht.

Publication: [DE 102014001414 A1 20150806](#)

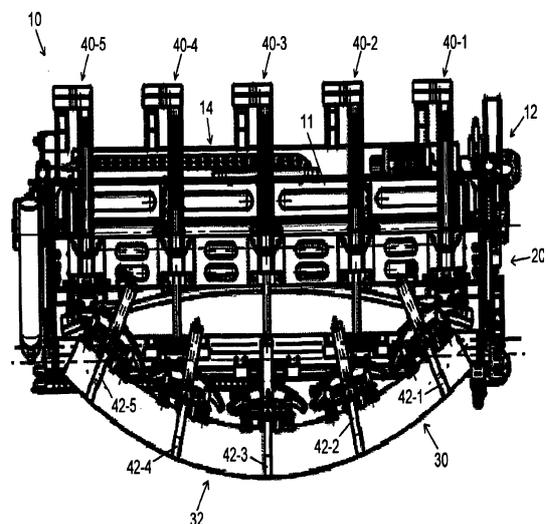
Applicant: Premium AEROTEC GmbH, 86179, Augsburg, DE

Inventor: Apmann, Hilmar, Dr., 26121, Oldenburg, DE; Breitfuss, Max, 28201, Bremen, DE; Meinen, Lars, 26655, Westerstede, DE; Tjarks, Werner, 26607, Aurich, DE; Schulz, Stefan, 26345, Bockhorn, DE

Prio:

Appl.No:

IPC: D04H 13/00 2006.01 (IA)



Thermisch fixierbarer Einlagevliesstoff, Verfahren zu dessen Herstellung und Verwendung

Die Erfindung betrifft einen thermisch fixierbaren Einlagevliesstoff, umfassend einen Spinnfaservliesstoff, der einen Anteil von 80 Gew.-% bis 100 Gew.-% an Spinnfasern aufweist, die eine Erweichungs- und Schmelztemperatur oder, falls nicht vorhanden, eine Zersetzungstemperatur größer als 170°C aufweisen, sowie eine Feinheit zwischen 0,5 dtex und 3 dtex, vorzugsweise zwischen 0,5 dtex und 2,5 dtex, besonders bevorzugt zwischen 0,5 und 2,1 dtex, wobei die Dicke des Einlagevliesstoffs von 0,01 mm bis 1 mm, vorzugsweise 0,01 mm bis 0,5 mm, beträgt, wobei der Spinnfaservliesstoff ein Flächengewicht von 5 g/m² bis 15 g/m², vorzugsweise von 5 g/m² bis 12 g/m², besonders bevorzugt zwischen 5 g/m² und 10 g/m² aufweist.

Publication: [DE 102014001776 A1 20150813](#)

Applicant: Carl Freudenberg KG, 69469, Weinheim, DE

Inventor: Scharfenberger, Gunter, Dr., 67227, Frankenthal, DE; Scherbel, Ulrich, 81825, München, DE; Sattler, Thomas, 69483, Wald-Michelbach, DE; Kinscherf, Cornelia, 69509, Mörlenbach, DE

Prio:

Appl.No:

IPC: D04H 1/62 2006.01 (IA)

Unterdeckplatte

Die vorliegende Erfindung handelt von einer Unterdeckplatte, wobei eine oder beide Oberflächen der Unterdeckplatte hydrophobe Eigenschaften aufweisen.

Publication: [DE 102014001792 A1 20150813](#)

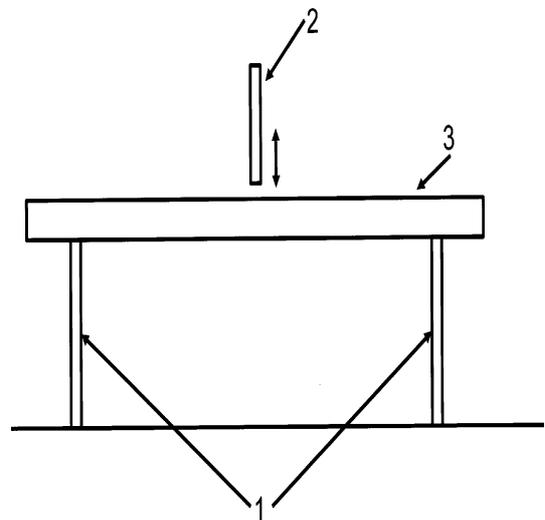
Applicant: Sandler AG, 95126, Schwarzenbach, DE

Inventor: Antrag auf Nichtnennung

Prio:

Appl.No:

IPC: D04H 1/42 2006.01 (IA)



Volumenvliesstoff

Die Erfindung betrifft einen Vliesstoff umfassend ein volumengebendes Material, insbesondere Faserbällchen, Daunen und/oder Feinfedern mit einer Höchstzugkraft, gemessen nach DIN EN 29 073 bei einem Flächengewicht von 50 g/m², in mindestens einer Richtung von mindestens 0,3 N/5 cm, insbesondere von 0,3 N/5 cm bis 100 N/5 cm.

Publication: [DE 102014002060 A1 20150820](#)

Applicant: Carl Freudenberg KG, 69469, Weinheim, DE

Inventor: Grynaeus, Peter, Dr., 69488, Birkenau, DE; Scharfenberger, Gunter, Dr., 67227, Frankenthal, DE; Sattler, Thomas, 69483, Wald-Michelbach, DE

Prio:
Appl.No:
IPC: D04H 1/4382 2012.01 (IA)

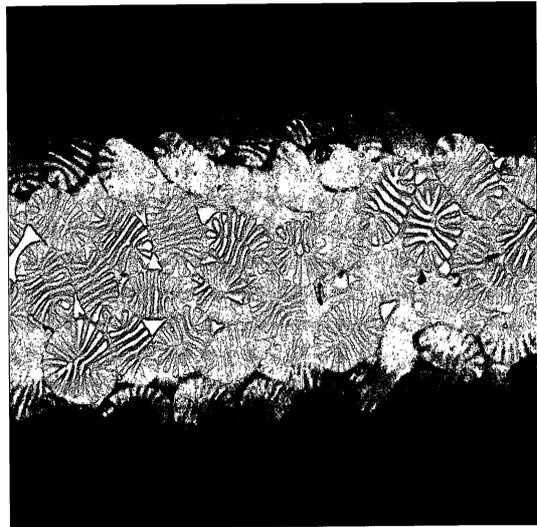
Reinigungstuch

Die Erfindung betrifft Reinigungstuch umfassend einen Mikrofaser-Verbundvliesstoff, in dem eine erste und eine zweite Faserkomponente in Form alternierender Lagen angeordnet sind, wobei - mindestens eine erste Lage A die erste Faserkomponente in Form schmelzgesponnener und zu einem Vlies abgelegter Verbundfilamente umfasst, die zumindest teilweise zu Elementar-Filamenten mit einem mittleren Titer von weniger als 0,1 dtex, vorzugsweise zwischen 0,03 dtex und 0,06 dtex gesplittet und verfestigt sind, - mindestens eine Lage B auf der ersten Lage A angeordnet ist, wobei die Lage B die zweite Faserkomponente in Form von zu einem Vlies abgelegten und verfestigten Fasern mit einem mittleren Titer von 0,1 bis 3 dtex umfasst, mindestens eine zweite Lage A auf der Lage B angeordnet ist.

Publication: **DE 102014002231 A1 20150827**

Applicant: Carl Freudenberg KG, 69469, Weinheim, DE
Inventor: Groten, Robert, Dr., Sundhoffen, FR; Eisenhut, Andreas, Dr., 82049, Pullach, DE; Dunkel, Jörg, 69115, Heidelberg, DE; Gleich, Thorsten, 64689, Grasellenbach, DE

Prio:
Appl.No:
IPC: D04H 1/498 2012.01 (IA)



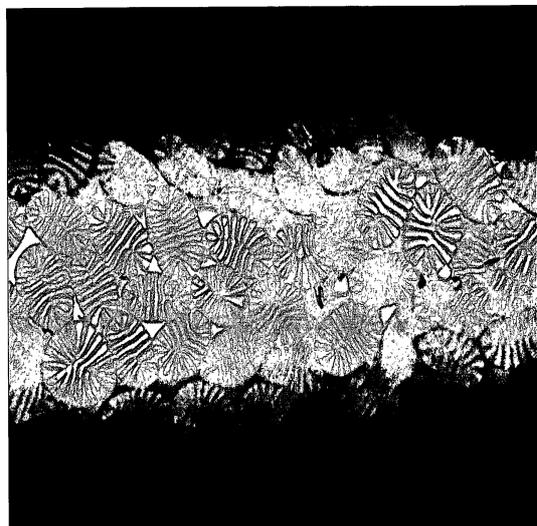
Mikrofaser-Verbundvliesstoff

Die Erfindung betrifft einen Mikrofaser-Verbundvliesstoff umfassend eine erste und eine zweite Faserkomponente, die in Form alternierender Lagen angeordnet sind, wobei - mindestens eine erste Lage A die erste Faserkomponente in Form schmelzgesponnener und zu einem Vlies abgelegter Verbundfilamente umfasst, die zumindest teilweise zu Elementar-Filamenten mit einem mittleren Titer von weniger als 0,1 dtex, vorzugsweise zwischen 0,03 dtex und 0,06 dtex gesplittet und verfestigt sind, - mindestens eine Lage B auf der ersten Lage A angeordnet ist, wobei die Lage B die zweite Faserkomponente in Form von zu einem Vlies abgelegten und verfestigten Fasern mit einem mittleren Titer von 0,1 bis 3 dtex umfasst, - mindestens eine zweite Lage A auf der Lage B angeordnet ist.

Publication: **DE 102014002232 A1 20150827**

Applicant: Carl Freudenberg KG, 69469, Weinheim, DE
Inventor: Groten, Robert, Dr., Sundhoffen, FR; Eisenhut, Andreas, Dr., 82049, Pullach, DE; Riboulet, Georges, Colmar, FR; Dengel, Peter, Dr., 67659, Kaiserslautern, DE; Neithardt, Wolfgang, Dr., 76709, Kronau, DE

Prio:
Appl.No:
IPC: D04H 1/4382 2012.01 (IA)



Verstärkungsstruktur mit Dickengradienten für faserverstärkte Kunststoffe sowie Verfahren und Vorrichtung zur Herstellung

Verstärkungsstruktur mit Dickengradienten für faserverstärkte Kunststoffe, insbesondere für Rotorblätter, bestehend aus einem Kettengewirke (1) mit Schussfadenlagen dadurch gekennzeichnet, dass eine Vielzahl von Stehschussfadenlagen (2), die im Bereich vorwählbarer Gewirkeabschnitte (3) zur Erzielung von Dickengradienten lagenweise reduziert oder erweitert sind.

Publication: [DE 102014002789 A1 20150827](#)

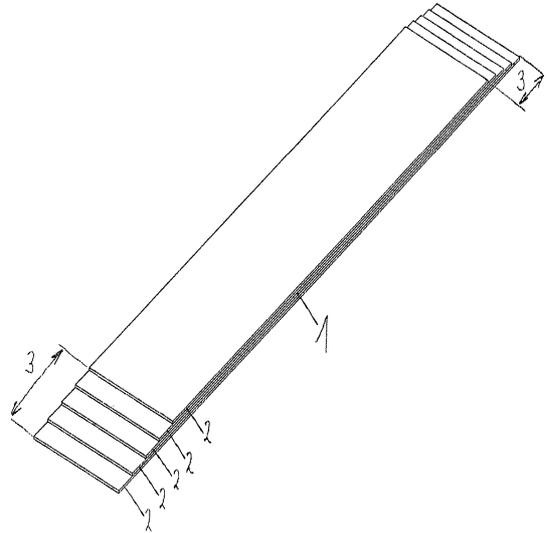
Applicant: Sächsisches Textilforschungsinstitut e.V.,
09125, Chemnitz, DE

Inventor: Thielemann, Günther, 09114, Chemnitz, DE;
Arnold, Rolf, 01257, Dresden, DE; Helbig,
Reinhard, 09353, Oberlungwitz, DE; Lang,
Thomas, 99762, Neustadt, DE; Ludwig, Niels,
38700, Braunlage, DE

Prio:

Appl.No:

IPC: D04B 21/00 2006.01 (IA)



Schwerentflammbares und selbsterlöschendes Faserbauteil

Bei einem Faserbauteil (1), insbesondere Faservliesformteil, vorzugsweise Kraftfahrzeugkarosserieverkleidungsbauteil, das ein textiles Flächengebilde (2) aufweist oder als solches ausgebildet ist, das eine Vliesstoffschicht (3) oder eine Faserverbundmatte umfasst, die mindestens eine Florlage (4) aufweist, die aus einem Fasergemisch an matrixbildenden, insbesondere thermoplastischen, Binfedern und strukturbildenden Fasern aufgebaut ist und/oder mindestens eine, insbesondere thermoplastische, Folienschicht aufweist, wobei die matrixbildenden Binfedern des Fasergemisches und/oder die Folienschicht, nicht aber die strukturbildenden Fasern, mittels einer formgebenden thermischen Behandlung schmelzbar oder geschmolzen und abkühlbar oder abgekühlt das Faserbauteil (1) verfestigend ausgebildet sind, oder die mittels eines Bindemittels, insbesondere Harz, duromergebunden das Faserbauteil (1) verfestigend ausgebildet ist, soll eine Lösung geschaffen werden, die es ermöglicht, gattungsgemäße Faserbauteile mit der Gefahr von Fahrzeugbränden entgegenwirkenden Eigenschaften auszustatten. Dies wird dadurch erreicht, dass das Faserbauteil (1), insbesondere Faservliesformteil, vorzugsweise Kraftfahrzeugkarosserieverkleidungsbauteil, mittels eines Polyvinylchlorid (PVC) gehalts, insbesondere von 2-30 Gew.-%, vorzugsweise von 5-20 Gew.-%, schwer entflammbar, mindestens entflammungshemmend, und/oder selbsterlöschend ausgebildet ist.

Publication: [DE 102014101234 A1 20150806](#)

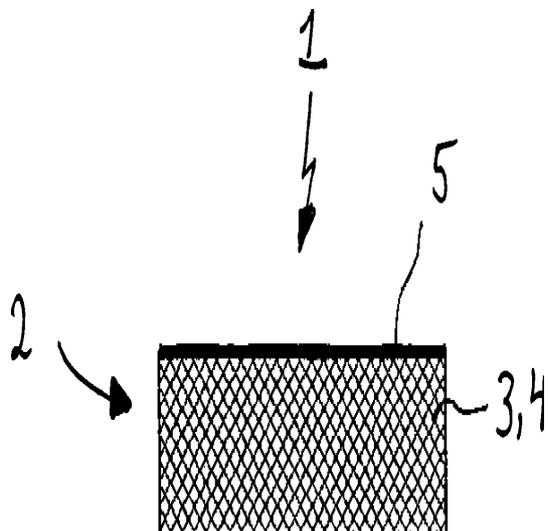
Applicant: Johann Borgers GmbH, 46397, Bocholt, DE

Inventor: Sieben, Holger, 46397, Bocholt, DE

Prio:

Appl.No:

IPC: D04H 1/4382 2012.01 (IA)



Radialflechtmaschine und Flachgeflecht

Die vorliegende Erfindung betrifft eine Radialflechtmaschine mit Stehfaden- und Flechtfadenzuführungen über ein Klöppelgetriebe (1), mit einem Flechtring (5), durch den die Steh(2)- und Flechtfäden (3) hindurchgeführt sind, und mit zumindest einer Transporteinrichtung (10) für den Transport eines zu umflechtenden Kerns (6), dadurch gekennzeichnet, dass der Flechtring (5) in Projektion auf eine vom Klöppelgetriebe (1) aufgespannte Fadenaustrittsebene E1 einen unrunder Innenquerschnitt aufweist.

Publication: [DE 102014202970 A1 20150820](#)

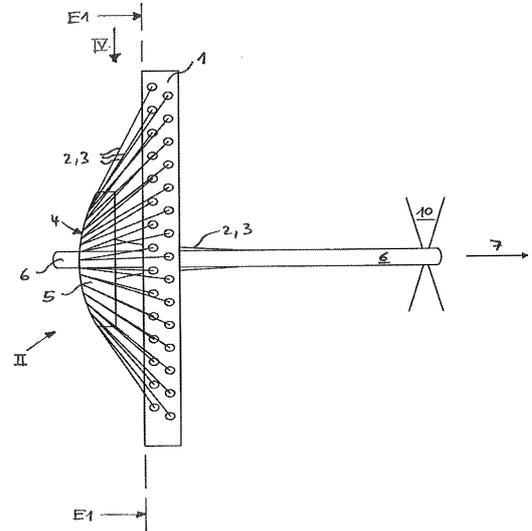
Applicant: SGL Kumpers GmbH & Co. KG, 48429, Rheine, DE

Inventor: Baumgart, Gregor, 41749, Viersen, DE; Leifeld, Martin, Dr., 47906, Kempen, DE; Brockmanns, Karl-Josef, Dr., 47877, Willich, DE; Wirtz, Jörg, 48432, Rheine, DE; Nefigmann, Bernd, 48565, Steinfurt, DE

Prio:

Appl.No:

IPC: D04C 3/40 2006.01 (IA)



Verfahren zum Stricken eines Schlauchgestricks

Es wird ein Verfahren zum Stricken eines Schlauchgestricks angegeben, bei dem das Herausstehen eines in einer Maschenstäbchenrichtung auf einer Außenseite eines schlauchförmigen Basisabschnitts kreuzenden Überkreuzungsfadens unterdrückt wird, wenn der schlauchförmige Basisabschnitt über mehrere Reihen hinweg gestrickt wird und ein Draht in den schlauchförmigen Basisabschnitt eingewebt wird. Während ein schlauchförmiger Basisabschnitt 1 über k Reihen hinweg unter Verwendung eines Basisfadenführers 8 in einer Flachstrickmaschine gestrickt wird, wird ein Drahtführer 9 einmal hin und her bewegt, um einen Draht 9Y in einen vorderen Basisteil 1F in dem schlauchförmigen Basisabschnitt in einer m-ten Reihe einzuweben und um den Draht 9Y in einen hinteren Basisteil 1B in dem schlauchförmigen Basisabschnitt 1 in einer n-ten Reihe einzuweben, wobei k eine natürliche Zahl größer oder gleich zwei ist, m eine natürliche Zahl größer oder gleich eins und kleiner oder gleich k ist und n eine natürliche Zahl größer oder gleich eins und kleiner oder gleich k und ungleich m ist.

Publication: [DE 102015001512 A1 20150813](#)

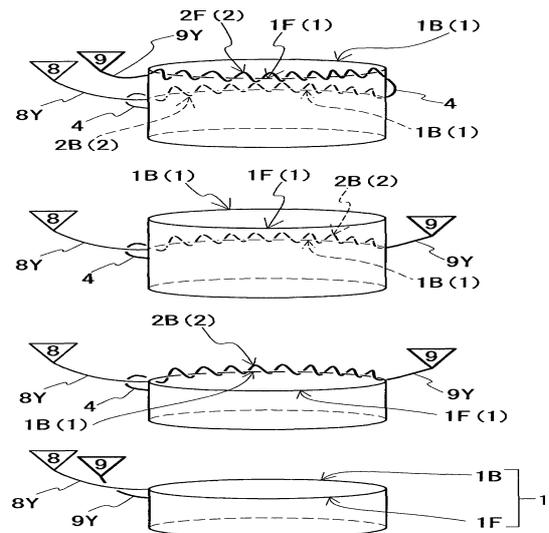
Applicant: SHIMA SEIKI MFG., LTD., Wakayama, Wakayama-shi, JP

Inventor: Kino, Takashi, c/o SHIMA SEIKI MFG., LTD., Wakayama, Wakayama-shi, JP; Ikenaka, Masamitsu, c/o SHIMA SEIKI MFG., LTD., Wakayama, Wakayama-shi, JP

Prio: JP 20140212 2014-024666

Appl.No:

IPC: D04B 1/00 2006.01 (IA)



Abbindverfahren für ein Gestrück

Es wird ein Abbindverfahren für ein Gestrück angegeben, mit dem ein Abbindvorgangsabschnitt gebildet werden kann, der sich weniger wahrscheinlich zu einer Trompetenform spreizt. Ein Einheitsstricken zum Bilden einer Doppelmasche 2 mit einer darin enthaltenen Zielmasche 1, die ein Ziel eines Abbindvorgangs ist, innerhalb einer Endmaschenreihe 10 eines Gestricks 100 und zum Stricken einer neuen Masche 3 der Maschenstäbchenrichtung der Doppelmasche 2 folgend wird wiederholt. Wenn die neue Masche 3 in jedem Einheitsstricken gestrickt wird, ist die neue Masche 3 eine hintere Masche, wenn die in der Doppelmasche 2 enthaltene Zielmasche 1 eine vordere Masche ist, und ist die neue Masche 3 eine vordere Masche, wenn die in der Doppelmasche 2 enthaltene Zielmasche 1 eine hintere Masche ist. Wenn die in einem n-ten Einheitsstricken gestrickte neue Masche mit der Zielmasche 1 in einem n + 1-ten Einheitsstricken überlappt wird, wobei n eine natürliche Zahl größer oder gleich eins ist, wird die neue Masche 3 auf einer Rückseite der vorderen Masche überlappt, wenn die Zielmasche 1 die vordere Masche ist, und wird die neue Masche 3 auf der Vorderseite der hinteren Masche überlappt, wenn die Zielmasche 1 die hintere Masche ist.

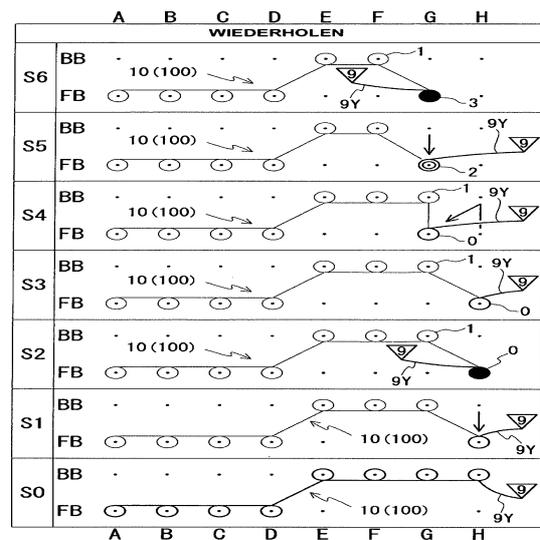
Publication: [DE 102015001744 A1 20150827](#)

Applicant: SHIMA SEIKI MFG., LTD., Wakayama-shi, JP
Inventor: Uemichi, Kazuya, c/o SHIMA SEIKI MFG., LTD., Wakayama, Wakayama-shi, JP

Prio: JP 20140227 2014-037121

Appl.No:

IPC: D04B 7/22 2006.01 (IA)



Herstellverfahren für RTM-Vorformlinge

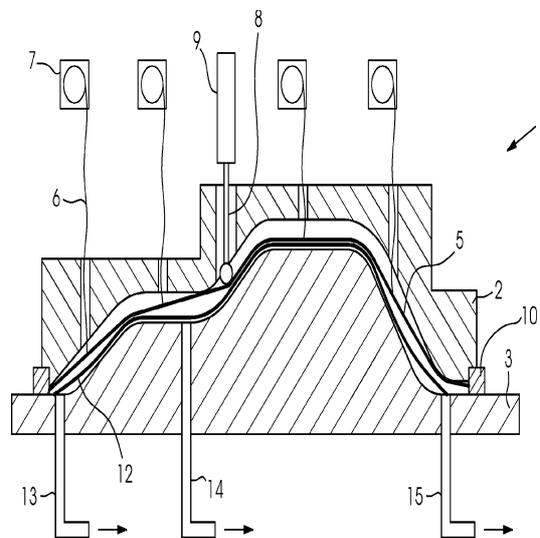
Bei einem Verfahren zum Herstellen von Vorformlingen für das Spritzpressen faserverstärkter Formteile werden die Vorformlinge mit einer Membranpresse (1) hergestellt und wird beim Rüsten eine Membran (5) eines Oberwerkzeugs einer konvexen oder erhabenen Geometrie eines Unterwerkzeugs (3) angeglichen, indem durch Ziehen oder Ansaugen der Membran (5) diese konkav oder vertieft verformt wird. Nach dem Rüsten wird das Oberwerkzeug auf das Unterwerkzeug (3) und das Werkstück (12) auf dem Unterwerkzeug (3) abgesenkt.

Publication: [DE 102015200813 A1 20150827](#)

Applicant: Heidelberger Druckmaschinen AG, 69115, Heidelberg, DE
Inventor: Bender, Rudolf, 76835, Weyher, DE; Herrmann, Bernd, 69254, Malsch, DE; Henn, Andreas, 69151, Neckargemünd, DE; Möhringer, Markus, 69469, Weinheim, DE; Müller, Andreas, 69120, Heidelberg, DE; Niggemann, Henning, Dr., 69221, Dossenheim, DE; Schölch, Axel, 69412, Eberbach, DE; Reinhard, Ludwig, 69221, Dossenheim, DE; Willinger, Peter, 69434, Hirschhorn, DE; Weigold, Matthias, Dr., 69115, Heidelberg, DE
Prio: DE 20140221 10 2014 002 507.1

Appl.No:

IPC: D04H 13/00 2006.01 (IA)

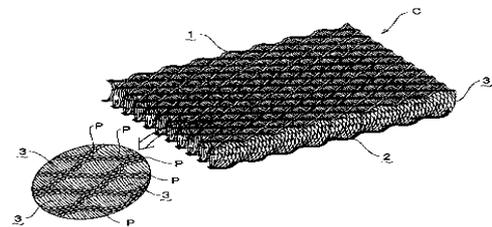


NET-LIKE THREE-DIMENSIONAL KNITTED FABRIC

PROBLEM TO BE SOLVED: To provide a net-like three-dimensional knitted fabric which does not suffer significant distortion in dimensions even when front and back basis materials in part of a fabric body are subjected to pressure bonding processing, and which does not suffer deterioration in sewing strength even when another member is sewn to a pressure bonding part.**SOLUTION:** A front fabric 1 and a back fabric 2 in which ground knit textures P, Q are knitted into a network form are arranged so as to face each other at a required interval, and are connected by using connection yarns 3 each formed of a monofilament, multifilament, spun yarn or carbon fiber, thereby forming a net-like knitted fabric. The connection yarns 3, 3... knitted in the ground knit textures P, P... in the front fabric 1 are knitted in the ground knit textures Q, Q... in the back fabric 2 in the state of being stretched diagonally with respect to the facing direction of the front and back fabrics and in the state of being made to cross each other. In addition, a fabric body C is formed by warp knitting in such a way that the diagonally stretched connection yarns 3, 3... are uniformly arranged in the whole insides of meshes $H_{1<SB>1</SB>}$, $H_{2<SB>2</SB>}$ of the front fabric 1 and the back fabric 2 in a plan view.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015061958 A 20150402](#)

Applicant: ASAHI DOKEN KK
Inventor: MATSUMOTO KOICHI
Prio: JP 20130819 2013169971
Appl.No: JP2014164349
IPC: D04B 21/14 2006.01 (IA)

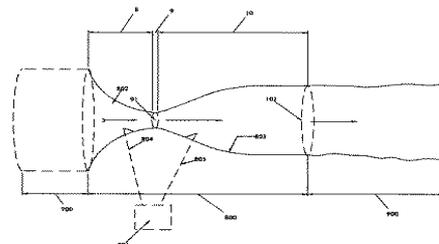


PROCESS AND APPARATUS FOR PRODUCING SUBMICRON FIBER, AND NONWOVEN FABRIC AND ARTICLE CONTAINING THE NONWOVEN FABRIC

PROBLEM TO BE SOLVED: To produce consistently high-quality submicron fibers for disposable articles in a more efficient manner at commercially significant output levels.**SOLUTION:** The present invention provides a process and apparatus for producing submicron fibers, more specifically, a process and apparatus for forming submicron fibers by fibrillation of polymer films, and provides nonwoven fabric materials and articles incorporating the submicron fibers.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015061959 A 20150402](#)

Applicant: POLYMER GROUP INC
Inventor: JOHNSON MICHAEL H; KRAUSE TIMOTHY;
HAYES MICHAEL W; CHHABRA RAJEEV;
AYDORE SAVAS; ISELE OLAF ERIK ALEXANDER;
XU HAN
Prio: US 20061018 2006 550624
Appl.No: JP2014237618
IPC: D04H 3/033 2012.01 (IA)

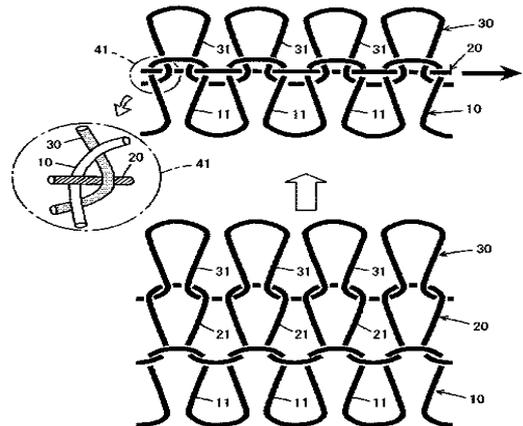


SET-UP METHOD IN FLAT-KNITTING MACHINE

PROBLEM TO BE SOLVED: To provide a knitting method in which a yarn to be removed is easily removed as the yarn to be removed becomes straight between an end stitch and a previous stitch of a knitted fabric when the yarn to be removed is pulled. **SOLUTION:** The method includes knitting a stitch 31 row of an end 30 following to a stitch 21 row of a yarn to be removed 20 on a flat-knitting machine provided with at least two front and rear needle beds. After knitting the stitch row of the yarn to be removed, the stitch row of the yarn to be removed is transferred to a needle bed on a side opposed to across a tooth port, and a stitch row of an end is knitted following to the stitch row of the yarn to be removed using a yarn different from the yarn to be removed. The front and rear of stitches are reversed between the stitches of the yarn to be removed and the stitches of the end. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015063765 A 20150409](#)

Applicant: SHIMA SEIKI MFG LTD; SHIMA CO
Inventor: OKAMOTO KAZUYOSHI; MORIMOTO SHINYA
Prio:
Appl.No: JP2013196521
IPC: D04B 1/00 2006.01 (IA)



POLYPHENYLENE SULFIDE FIBER NONWOVEN FABRIC

PROBLEM TO BE SOLVED: To provide a nonwoven fabric of polyphenylene sulfide (PPS) fibers having a thin fiber diameter and excellent heat adhesive properties that is made of a resin containing PPS as a main component and is excellent in flame retardance and chemical resistance. **SOLUTION:** The nonwoven fabric of PPS fibers is made of PPS fibers comprising a copolymerization PPS resin containing p-phenylene sulfide as a main unit and at least one copolymerization unit other than p-phenylene sulfide, in which the copolymerization PPS resin has a melting point of 190-270°C. In the nonwoven fabric of PPS fibers, an average fiber diameter of PPS fibers is 0.1-17 μm. In the nonwoven fabric of PPS fibers, the nonwoven fabric is a melt-blown nonwoven fabric. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015067903 A 20150413](#)

Applicant: TORAY IND INC
Inventor: SHIMADA DAIKI; NAKANO YOHEI; YAGAKE YOSHIKAZU
Prio:
Appl.No: JP2013199849
IPC: D04H 3/009 2012.01 (IA)



NONWOVEN FIBER STRUCTURE HAVING SELF-QUENCHING PROPERTY

PROBLEM TO BE SOLVED: To provide a lightweight nonwoven fiber structure having self-quenching property without flame retardant. **SOLUTION:** A self-quenching property can be given to nonwoven fiber structure by controlling total density, surface density and surface smoothness of the nonwoven fiber structure without using flame retardant which has been thought to be indispensable to give flame resistance. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [**JP 2015067907 A 20150413**](#)

Applicant: KURARAY CO LTD
Inventor: IIZUMI MASATO; KIYOOKA SUMITO
Prio:
Appl.No: JP2013200682
IPC: D04H 1/55 2012.01 (IA)

(19)  JAPANESE PATENT OFFICE	
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(43) Date of publication of application: 13.04.2015	
(54) Int. Cl. D04H 1/55 D04H 1/564	(2012.01) (2012.01)
(21) Application number: 2013200682	(72) Inventor: IIZUMI MASATO; KIYOOKA SUMITO
(22) Date of filing: 27.09.2013	
(71) Applicant: KURARAY CO LTD	
(54) NONWOVEN FIBER STRUCTURE HAVING SELF- QUENCHING PROPERTY	
(57) Abstract:	
<p>PROBLEM TO BE SOLVED: To provide a lightweight nonwoven fiber structure having self-quenching property without flame retardant.</p> <p>SOLUTION: A self-quenching property can be given to nonwoven fiber structure by controlling total density, surface density and surface smoothness of the nonwoven fiber structure without using flame retardant which has been thought to be indispensable to give flame resistance.</p> <p>COPYRIGHT: (C)2015,JPO&INPIT</p>	

KNITTED FABRIC AND CLOTHING

PROBLEM TO BE SOLVED: To provide a knitted fabric containing an elastic yarn, which has a temperature rising instantaneously upon elongation, permanently generates heat upon elongation when the knitted fabric undergoes repeated elongation and recovery, facilitates a wearing operation, and is capable of being manufactured at low cost. **SOLUTION:** A knitted fabric includes an elastic yarn and a non-elastic yarn. The content of the elastic yarn is 15-50 g/m². The instantaneous exothermic temperature upon elongation in at least one of warp and weft directions is 1.0°C or greater. The filling rate of the knitted fabric determined by the following formula is 20-30%. The stress ratio determined by the following formula from an approach route stress and a return route stress at an intermediate point of 50% elongation when the knitted fabric is elongated to 80% and then returned to an original length is 0.40-0.80. The filling rate (%)=(M/L)÷(H1xK1+H2xK2+...HnxKn)x100 stress ratio=(a return route stress at a point of 50% elongation (N))/(an approach route stress at a point of 50% elongation(N)). **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [**JP 2015067912 A 20150413**](#)

Applicant: ASAHI KASEI FIBERS CORP
Inventor: YOSHIDA YUJI; OYA KENJI
Prio:
Appl.No: JP2013202242
IPC: D04B 1/00 2006.01 (IA)

(19)  JAPANESE PATENT OFFICE	
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(43) Date of publication of application: 13.04.2015	
(51) Int. Cl. D04B 1/00 D04B 1/16 D04B 21/00 D04B 21/16	(2006.01) (2006.01) (2006.01) (2006.01)
	A41D 13/00 (2006.01) A41D 13/09 (2006.01) A41D 13/015 (2006.01) A41D 21/00 (2006.01)
(21) Application number: 2013202242	(72) Inventor: YOSHIDA YUJI OYA KENJI
(22) Date of filing: 27.09.2013	
(71) Applicant: ASAHI KASEI FIBERS CORP	
(54) KNITTED FABRIC AND CLOTHING	
(57) Abstract:	
<p>PROBLEM TO BE SOLVED: To provide a knitted fabric containing an elastic yarn, which has a temperature rising instantaneously upon elongation, permanently generates heat upon elongation when the knitted fabric undergoes repeated elongation and recovery, facilitates a wearing operation, and is capable of being manufactured at low cost.</p> <p>SOLUTION: A knitted fabric includes an elastic yarn and a non-elastic yarn. The content of the elastic yarn is 15-50 g/m². The instantaneous exothermic temperature upon elongation in at least one of warp and weft directions is 1.0°C or greater. The filling rate of the knitted fabric determined by the following formula is 20-30%. The stress ratio determined by the following formula from an approach route stress and a return route stress at an intermediate point of 50% elongation when the knitted fabric is elongated to 80% and then returned to an original length is 0.40-0.80. The filling rate (%)=(M/L)÷(H1xK1+H2xK2+...HnxKn)x100 stress ratio=(a return route stress at a point of 50% elongation (N))/(an approach route stress at a point of 50% elongation(N)).</p> <p>COPYRIGHT: (C)2015,JPO&INPIT</p>	

KNITTED FABRIC

PROBLEM TO BE SOLVED: To provide a knitted fabric excellent in anti-pilling properties, burst strength and abrasion strength while being a knitted fabric which is formed of short fibers, and which is thin, has a soft feel and is excellent in elasticity.
SOLUTION: A knitted fabric is formed of: a blended yarn obtained by blending high wet modulus rayon short fibers A and solvent-spun cellulose short fibers B subjected to anti-fibrillation treatment at a stage of raw stock; and a polyurethane yarn C. In the blended yarn, the high wet modulus rayon short fibers A and the solvent-spun cellulose short fibers B are blended in a mass ratio of A:B=55:45 to 70:30, and an average fluff index of 3 mm or more is 40 pieces/10 m or less. The knitted fabric has a basis weight of 150 g/m² or less and 100 g/m² or more, and is formed of a bare plain stitch structure knitted by using a single needle bed of 32 gauges or more and 46 gauges or less. In the knitted fabric, an elongation recovery rate in a weft direction is 90% or more.
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Publication: [JP 2015067915 A 20150413](#)

Applicant: UNITIKA TRADING CO LTD

Inventor: NAKANISHI TERUSHIGE

Prio:

Appl.No: JP2013202905

IPC: D04B 1/14 2006.01 (IA)

JAPANESE PATENT OFFICE		PATENT ABSTRACTS OF JAPAN	
(19)		(11) Publication number: 2015067915 A	
		(43) Date of publication of application: 13.04.2015	
(51) Int. Cl.	D04B 1/14 D02G 3/04	(2006.01) (2006.01)	
(21) Application number:	2013202905	(71) Applicant:	UNITIKA TRADING CO LTD
(22) Date of filing:	30.09.2013	(72) Inventor:	NAKANISHI TERUSHIGE
(54) KNITTED FABRIC			
(57) Abstract:			
<p>PROBLEM TO BE SOLVED: To provide a knitted fabric excellent in anti-pilling properties, burst strength and abrasion strength while being a knitted fabric which is formed of short fibers, and which is thin, has a soft feel and is excellent in elasticity.</p> <p>SOLUTION: A knitted fabric is formed of a blended yarn obtained by blending high wet modulus rayon short fibers A and solvent-spun cellulose short fibers B subjected to anti-fibrillation treatment at a stage of raw stock, and a polyurethane yarn C. In the blended yarn, the high wet modulus rayon short fibers A and the solvent-spun cellulose short fibers B are blended in a mass ratio of A:B=55:45 to 70:30, and an average fluff index of 3 mm or more is 40 pieces/10 m or less. The knitted fabric has a basis weight of 150 g/m² or less and 100 g/m² or more, and is formed of a bare plain stitch structure knitted by using a single needle bed of 32 gauges or more and 46 gauges or less. In the knitted fabric, an elongation recovery rate in a weft direction is 90% or more.</p>			
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NONWOVEN FABRIC

PROBLEM TO BE SOLVED: To provide a nonwoven fabric that contains a main fiber and a heat adhesive fiber, in which the main fiber is fixed by the heat adhesive fiber, and is excellent in thinness, uniformity, and strength.
SOLUTION: A flat multi-lobe cross section polyester fiber satisfying the following (a)-(d) is used as a main fiber. (a) The longest line part A of a fiber cross section and the longest line part, that is denoted by B, among line parts that are orthogonal to A and connect leaf parts satisfy Formula (1). (b) A plurality of leaf parts are arranged at each of both ends of A and B and both ends of line parts that are orthogonal to A and connect leaf parts. There are 8 or more leaf parts and there is a recessed part between neighboring leaf parts. (c) When the line part next longest to B among line parts that are orthogonal to A and connect leaf parts is denoted by C, C and B satisfy Formula (2). (d) When the shorter line part of line parts that are neighboring to B and substantially parallel to B and connects recessed parts is denoted by D, B and D satisfy the following Formula (3). (1) $2 \leq \frac{\text{length of A}}{\text{length of B}} \leq 3$, (2) $0.6 \leq \frac{\text{length of C}}{\text{length of B}} \leq 0.9$, (3) $1.3 \leq \frac{\text{length of B}}{\text{length of D}} \leq 2.5$.
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Publication: [JP 2015067916 A 20150413](#)

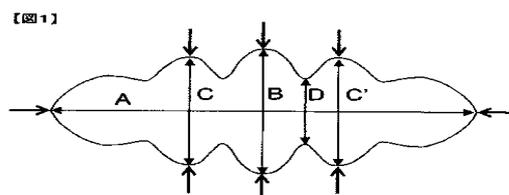
Applicant: TORAY IND INC

Inventor: MORI TATSUYA; KASAHARA TERUHIKO;
YANOMIYA MASAHIRO

Prio:

Appl.No: JP2013203126

IPC: D04H 1/4391 2012.01 (IA)



WATER-ABSORBING AND QUICK-DRYING KNITTED FABRIC

PROBLEM TO BE SOLVED: To provide a water-absorbing and quick-drying knitted fabric having superior texture and both water-absorptivity and quick-drying.**SOLUTION:** A water-absorbing and quick-drying knitted fabric consists of core fiber consisting of cotton and double multilayer spun yarn having sheath part fiber consisting of cotton. The double multilayer spun yarn is what the core fiber that a twist factor is 3.0-5.5 is twisted to the same direction by the sheath part fiber at a twist factor 2.5-4.0. A blend rate of cotton for the whole knitted fabric is not less than 85% by weight.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [**JP 2015067927 A 20150413**](#)

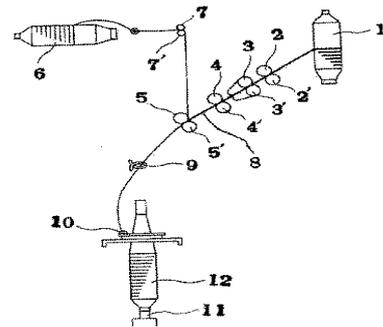
Applicant: UNITIKA TRADING CO LTD

Inventor: OZAKI TAKANORI

Prio:

Appl.No: JP2013205252

IPC: D04B 1/14 2006.01 (IA)



NONWOVEN FABRIC FOR REINFORCING FIBER-REINFORCED PLASTIC

PROBLEM TO BE SOLVED: To provide a reinforcing nonwoven fabric which achieves both excellent strength and resin impregnability, in which blocking between sheets is suppressed.**SOLUTION:** The nonwoven fabric for reinforcing fiber-reinforced plastic includes a main fiber and a binder component, the binder component comprises a polyester resin and an acrylic resin, and the content of the polyester resin is less than 50 mass% with respect to the total mass of the binder component.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [**JP 2015067928 A 20150413**](#)

Applicant: OJI HOLDINGS CORP

Inventor: KITA YUKI; ISHIZAWA HITOSHI

Prio:

Appl.No: JP2013205384

IPC: D04H 1/587 2012.01 (IA)

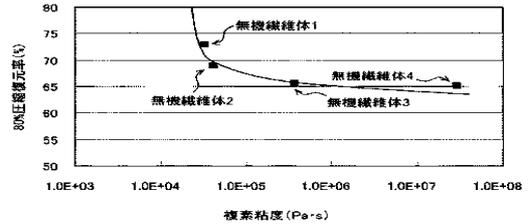


INORGANIC FIBER BODY

PROBLEM TO BE SOLVED: To provide an inorganic fiber body carrying out a performance gain while preventing diffusion of formaldehyde.**SOLUTION:** An inorganic fiber body contains rock wool and a binder composition binding fiber forming the rock wool. The binder composition is composed primarily of acrylic resin, and a complex viscosity measured at angular frequency 5.8 s^{-1} and temperature 25°C is not more than 1.0×10^5 Pa s.
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Publication: [JP 2015067929 A 20150413](#)

Applicant: NICHIAS CORP
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Prio:
Appl.No: JP2013205692
IPC: D04H 1/4209 2012.01 (IA)



NET-LIKE STRUCTURE EXCELLENT IN COMPRESSION DURABILITY

PROBLEM TO BE SOLVED: To provide a net-like structure that has a small repeated compression residual strain and a large retention of hardness after repeated compression, and is excellent in repeated compression durability.**SOLUTION:** The net-like structure is a three-dimensional random loop joint structure which is made by winding a continuous linear body that is made of a polyolefin-based thermoplastic elastomer and has a fineness of 100 dtex or more and 60000 dtex or less to form random loops and contacting respective loops with each other in a melted state. The apparent density is 0.005 g/cm³-0.20 g/cm³. The 50% constant-displacement position repeated compression residual strain is equal to or less than 15%. The retention of hardness upon 50% compression after a 50% constant-displacement position repeated compression is equal to or more than 85%.
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Publication: [JP 2015067932 A 20150413](#)

Applicant: TOYOBO CO LTD
Inventor: YANAKA TERUYUKI; KOFUCHI SHINICHI;
WAKUI HIROYUKI
Prio:
Appl.No: JP2013206381
IPC: D04H 3/033 2012.01 (IA)

(19) JAPANESE PATENT OFFICE

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(11) Publication number: 2015067932 A
(43) Date of publication of application: 13.04.2015

(51) Int. Cl. (2012.01)
D04H 3/033 (2012.01)
D04H 3/007 (2012.01)
D04H 3/14 (2012.01)

(21) Application number: 2013206381 (72) Inventor: YANAKA TERUYUKI
KOFUCHI SHINICHI
WAKUI HIROYUKI
(22) Date of filing: 01.10.2013
(71) Applicant: TOYOBO CO LTD

(54) NET-LIKE STRUCTURE EXCELLENT IN COMPRESSION DURABILITY

(57) Abstract:
PROBLEM TO BE SOLVED: To provide a net-like structure that has a small repeated compression residual strain and a large retention of hardness after repeated compression, and is excellent in repeated compression durability.
SOLUTION: The net-like structure is a three-dimensional random loop joint structure which is made by winding a continuous linear body that is made of a polyolefin-based thermoplastic elastomer and has a fineness of 100 dtex or more and 60000 dtex or less to form random loops and contacting respective loops with each other in a melted state. The apparent density is 0.005 g/cm³-0.20 g/cm³. The 50% constant-displacement position repeated compression residual strain is equal to or less than 15%. The retention of hardness upon 50% compression after a 50% constant-displacement position repeated compression is equal to or more than 85%.
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NET-LIKE STRUCTURE EXCELLENT IN COMPRESSION DURABILITY

PROBLEM TO BE SOLVED: To provide a net-like structure that has a small repeated compression residual strain and a large retention of hardness after repeated compression, and is excellent in repeated compression durability.**SOLUTION:** The net-like structure is a three-dimensional random loop joint structure which is made by winding a continuous linear body that is made of an ethylene vinyl acetate copolymer and has a fineness of 100 dtex or more and 60000 dtex or less to form random loops and contacting respective loops with each other in a melted state. The apparent density is $0.005 \text{ g/cm}^3 < SP > 3 < / SP > - 0.20 \text{ g/cm}^3 < SP > 3 < / SP >$. The 50% constant-displacement position repeated compression residual strain is equal to or less than 15%. The retention of hardness upon 50% compression after a 50% constant-displacement position repeated compression is equal to or more than 85%.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015067933 A 20150413](#)

Applicant: TOYOBO CO LTD
Inventor: YANAKA TERUYUKI; KOFUCHI SHINICHI;
WAKUI HIROYUKI

Prio:
Appl.No: JP2013206382
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(31) Application number: 2013206382	(72) Inventor: YANAKA TERUYUKI KOFUCHI SHINICHI WAKUI HIROYUKI
(22) Date of filing: 01.10.2013	
(71) Applicant: TOYOBO CO LTD	
(54) NET-LIKE STRUCTURE EXCELLENT IN COMPRESSION DURABILITY	
(57) Abstract:	
PROBLEM TO BE SOLVED: To provide a net-like structure that has a small repeated compression residual strain and a large retention of hardness after repeated compression, and is excellent in repeated compression durability.	
SOLUTION: The net-like structure is a three-dimensional random loop joint structure which is made by winding a continuous linear body that is made of an ethylene vinyl acetate copolymer and has a fineness of 100 dtex or more and 60000 dtex or less to form random loops and contacting respective loops with each other in a melted state. The apparent density is $0.005 \text{ g/cm}^3 < SP > 3 < / SP > - 0.20 \text{ g/cm}^3 < SP > 3 < / SP >$. The 50% constant-displacement position repeated compression residual strain is equal to or less than 15%. The retention of hardness upon 50% compression after a 50% constant-displacement position repeated compression is equal to or more than 85%.	
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NET-LIKE STRUCTURE EXCELLENT IN COMPRESSION DURABILITY

PROBLEM TO BE SOLVED: To provide a net-like structure that has a small repeated compression residual strain and a large retention of hardness after repeated compression, and is excellent in repeated compression durability.**SOLUTION:** The net-like structure is a three-dimensional random loop joint structure which is made by winding a continuous linear body that is made of a polyurethane-based thermoplastic elastomer and has a fineness of 100 dtex or more and 60000 dtex or less to form random loops and contacting respective loops with each other in a melted state. The apparent density is $0.005 \text{ g/cm}^3 < SP > 3 < / SP > - 0.20 \text{ g/cm}^3 < SP > 3 < / SP >$. The 50% constant-displacement position repeated compression residual strain is equal to or less than 15%. The retention of hardness upon 50% compression after a 50% constant-displacement position repeated compression is equal to or more than 85%.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015067934 A 20150413](#)

Applicant: TOYOBO CO LTD
Inventor: YANAKA TERUYUKI; KOFUCHI SHINICHI;
WAKUI HIROYUKI

Prio:
Appl.No: JP2013206383
IPC: D04H 3/03 2012.01 (IA)

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(51) Int. Cl. D04H 3/03 D04H 3/009	(2012.01) (2012.01)
(31) Application number: 2013206383	(72) Inventor: YANAKA TERUYUKI KOFUCHI SHINICHI WAKUI HIROYUKI
(22) Date of filing: 01.10.2013	
(71) Applicant: TOYOBO CO LTD	
(54) NET-LIKE STRUCTURE EXCELLENT IN COMPRESSION DURABILITY	
(57) Abstract:	
PROBLEM TO BE SOLVED: To provide a net-like structure that has a small repeated compression residual strain and a large retention of hardness after repeated compression, and is excellent in repeated compression durability.	
SOLUTION: The net-like structure is a three-dimensional random loop joint structure which is made by winding a continuous linear body that is made of a polyurethane-based thermoplastic elastomer and has a fineness of 100 dtex or more and 60000 dtex or less to form random loops and contacting respective loops with each other in a melted state. The apparent density is $0.005 \text{ g/cm}^3 < SP > 3 < / SP > - 0.20 \text{ g/cm}^3 < SP > 3 < / SP >$. The 50% constant-displacement position repeated compression residual strain is equal to or less than 15%. The retention of hardness upon 50% compression after a 50% constant-displacement position repeated compression is equal to or more than 85%.	
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NET-LIKE STRUCTURE EXCELLENT IN COMPRESSION DURABILITY

PROBLEM TO BE SOLVED: To provide a net-like structure that has a small repeated compression residual strain and a large retention of hardness after repeated compression, and is excellent in repeated compression durability.**SOLUTION:** The net-like structure is a three-dimensional random loop joint structure which is made by winding a continuous linear body that is made of a polyamide-based thermoplastic elastomer and has a fineness of 100 dtex or more and 60000 dtex or less to form random loops and contacting respective loops with each other in a melted state. The apparent density is 0.005 g/cm³-0.20 g/cm³. The 50% constant-displacement position repeated compression residual strain is equal to or less than 15%. The retention of hardness upon 50% compression after a 50% constant-displacement position repeated compression is equal to or more than 85%.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015067935 A 20150413](#)

Applicant: TOYOBO CO LTD
Inventor: YANAKA TERUYUKI; KOFUCHI SHINICHI;
 WAKUI HIROYUKI

Prio:
Appl.No: JP2013206384
IPC: D04H 3/009 2012.01 (IA)

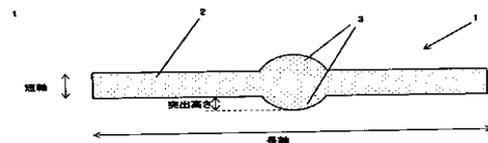


NONWOVEN FABRIC

PROBLEM TO BE SOLVED: To provide a nonwoven fabric that is excellent in wiping-off performance so that high collection efficiency is attained even when a capture object is viscous.**SOLUTION:** The nonwoven fabric comprises a cellulosic staple fiber and an acrylic staple fiber having a modified cross-section as constituent fibers, and the constituent fibers are three-dimensionally and integrally entangled with each other. The acrylic staple fiber has a cross section of a rectangular shape. At specific positions in a long axis direction of the rectangular shape, the acrylic staple fiber has arc-shaped projecting portions projecting to a short axis direction respectively. The height of each of the projecting portions is in the range of 0.5-1.5 times of the length of the short axis. The ratio of the short axis to the long axis of the rectangular shape is in the range of 1:10-1:15.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015067936 A 20150413](#)

Applicant: UNITIKA LTD
Inventor: KENSHO NOBUO; MURAKOSO SAKI
Prio:
Appl.No: JP2013206397
IPC: D04H 1/43 2012.01 (IA)



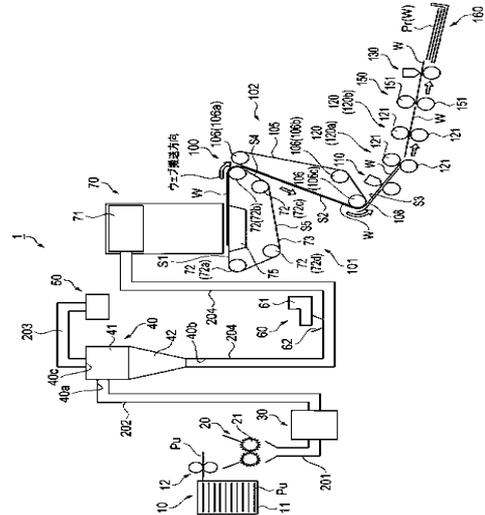
SHEET PRODUCTION APPARATUS

PROBLEM TO BE SOLVED: To provide a downsized sheet production apparatus.**SOLUTION:** A sheet production apparatus comprises a conveying unit conveying deposited web containing fiber and resin, and a heating unit heating the web. The conveying unit has a first surface conveying the web and a second surface located on the downstream of the first surface in the conveying direction of the web and conveying the web, and an angle formed by the first surface and the second surface is within 90 degrees.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015071841 A 20150416](#)

Applicant: SEIKO EPSON CORP
Inventor: FUJITA YOSHIO; GOMI KATSUTO; SEKI SHUNICHI

Prio:
Appl.No: JP2013207966
IPC: D04H 1/736 2012.01 (IA)



HEAT RETAINING FABRIC

PROBLEM TO BE SOLVED: To provide a spun yarn-used fabric that has a long lasting excellent heat retaining effect irrespective of weather, is excellent in a warm feeling, and is suitable for clothing for autumn and winter.**SOLUTION:** The heat retaining fabric is made by using a two-layer structure spun yarn that is a spun yarn in which a core part is composed of a polyester staple fiber containing far-infrared radiation fine particles and a sheath part is composed of a polyester staple fiber containing exothermic fine particles. The mass ratio of the core part to the sheath part (the core part/the sheath part) is in the range of 10/90-60/40 and the twist coefficient is in the range of 2.0-4.0.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015071847 A 20150416](#)

Applicant: UNITIKA TRADING CO LTD; NIPPON ESTER CO LTD

Inventor: SAKABE ICHIRO

Prio:
Appl.No: JP2013209221
IPC: D04B 1/14 2006.01 (IA)

(19) JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: 2015071847 A
 (43) Date of publication of application: 16.04.2015

(51) Int. Cl. **D04B 1/14** (2006.01)
D02G 3/04 (2006.01)
D02G 3/36 (2006.01)
D02G 3/28 (2006.01)
D03D 1/80 (2006.01)

(21) Application number: 2013209221 (71) Applicant: UNITIKA TRADING CO LTD
 NIPPON ESTER CO LTD
 (22) Date of filing: 04.10.2013 (72) Inventor: SAKABE ICHIRO

(51) **HEAT RETAINING FABRIC**

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a spun yarn-used fabric that has a long lasting excellent heat retaining effect irrespective of weather, is excellent in a warm feeling, and is suitable for clothing for autumn and winter.

SOLUTION: The heat retaining fabric is made by using a two-layer structure spun yarn that is a spun yarn in which a core part is composed of a polyester staple fiber containing far-infrared radiation fine particles and a sheath part is composed of a polyester staple fiber containing exothermic fine particles. The mass ratio of the core part to the sheath part (the core part/the sheath part) is in the range of 10/90-60/40 and the twist coefficient is in the range of 2.0-4.0.

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SPUN-BONDED NONWOVEN FABRIC, PRODUCTION METHOD THEREOF AND USE THEREOF

PROBLEM TO BE SOLVED: To provide a spun-bonded nonwoven fabric which does not adhere to a roll or the like immediately after fiber deposition and is excellent in productivity, elasticity, touch, and fuzz resistance. **SOLUTION:** There is provided a spun-bonded nonwoven fabric including a filament made of a thermoplastic polyurethane elastomer (A) which is a thermoplastic polyurethane elastomer (A2) comprising ethylene bis-oleic acid amide and/or crosslinking organic fine particles, having a hardness of 75-85, and being produced by using 1,4-bis(2-hydroxy ethoxy)benzene as a chain extender. Further, there is provided a spun-bonded nonwoven fabric including a filament made of the thermoplastic polyurethane elastomer (A) and a filament made of a thermoplastic resin (B) other than the thermoplastic polyurethane elastomer (A), and the use thereof. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015071854 A 20150416](#)

Applicant: MITSUI CHEMICALS INC
Inventor: SUZUKI KENICHI; YOKOYAMA TETSUYA
Prio: JP 20100415 2010094117, JP 20100415 2010094116
Appl.No: JP2015001726
IPC: D04H 3/16 2006.01 (IA)

(19)  JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN
 (11) Publication number: 2015071854 A
 (43) Date of publication of application: 16.04.2015

(51) Int. Cl. **D04H 3/16** (2006.01)
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D06G 18/42 (2006.01)

(21) Application number: 2015001726
 (22) Date of filing: 07.01.2015
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 15.04.2010 JP 2010094116

(52) Division of application: 2012510711
 (71) Applicant: MITSUI CHEMICALS INC
 (72) Inventor: SUZUKI KENICHI
 YOKOYAMA TETSUYA

(54) **SPUN-BONDED NONWOVEN FABRIC, PRODUCTION METHOD THEREOF AND USE THEREOF**

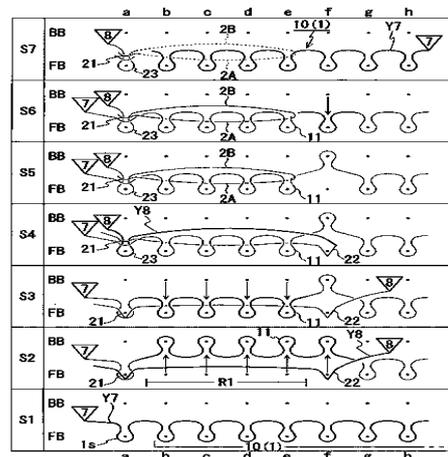
(57) Abstract:
PROBLEM TO BE SOLVED: To provide a spun-bonded nonwoven fabric which does not adhere to a roll or the like immediately after fiber deposition and is excellent in productivity, elasticity, touch, and fuzz resistance.
SOLUTION: There is provided a spun-bonded nonwoven fabric including a filament made of a thermoplastic polyurethane elastomer (A) which is a thermoplastic polyurethane elastomer (A2) comprising ethylene bis-oleic acid amide and/or crosslinking organic fine particles, having a hardness of 75-85, and being produced by using 1,4-bis(2-hydroxy ethoxy)benzene as a chain extender. Further, there is provided a spun-bonded nonwoven fabric including a filament made of the thermoplastic polyurethane elastomer (A) and a filament made of a thermoplastic resin (B) other than the thermoplastic polyurethane elastomer (A), and the use thereof.
COPYRIGHT: (C)2015,JPO&INPIT

METHOD FOR KNITTING FABRIC

PROBLEM TO BE SOLVED: To provide a method for knitting a fabric in which a fabric including a blanket stitch-like decorative part is knitted by using a flat knitting machine. **SOLUTION:** In a method for knitting a fabric, an edge part in the knitting width direction of a base knitted fabric 1 is fringed with a decorative knitting yarn Y8 by repeating the following steps α to γ multiple times during the time until the base knitted fabric 1 is finished by knitting base stitch rows 10 in multiple steps successively in the wale direction: a step α of knitting a starting stitch 21 further on the outside than an end part in the knitting width direction of the base knitted fabric 1 by using the decorative knitting yarn Y8; a step β of turning back the decorative knitting yarn Y8 extending from the starting stitch 21 at a position further on the inside in the knitting width direction than a turn-back point stitch 11 which is a stitch in the base stitch row 10, and bringing the turn-back point stitch 11 into the state of being held from front and back sides with the turned-back decorative knitting yarn Y8; and a step γ of knitting a retaining stitch 23 following the starting stitch 21 in the wale direction. When n is a natural number of 1 or more, the n+1th starting stitch 21 is knitted at a position following the nth starting stitch 21 in the wale direction. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015074836 A 20150420](#)

Applicant: SHIMA SEIKI MFG LTD
Inventor: UEMICHI KAZUYA
Prio:
Appl.No: JP2013209566
IPC: D04B 1/22 2006.01 (IA)



POLYESTER FILAMENT NONWOVEN FABRIC AND FILTER FOR FOOD OBTAINED BY USING THE SAME

PROBLEM TO BE SOLVED: To provide a polyester filament nonwoven fabric excellent in transparency, dimension stability and component extraction properties, and to provide a filter for food obtained by using the same.**SOLUTION:** The polyester filament nonwoven fabric comprises polyester filaments having a titanium element content of 1-100 ppm, an average fiber diameter of 15-40 μm , a birefringence of 0.03-0.08 and a crystallinity of 30-50%, and has a basis weight of 10-30 g/m². The filter for food comprises the polyester filament nonwoven fabric.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015074838 A 20150420](#)

Applicant: ASAHI KASEI FIBERS CORP
Inventor: YOKOYAMA TAKAFUMI; KOO RUMINA;
OKAJIMA SHINICHI; KATO KAZUFUMI

Prio:
Appl.No: JP2013209682
IPC: D04H 3/011 2012.01 (IA)

(19)  JAPANESE PATENT OFFICE	
PATENT ABSTRACTS OF JAPAN	
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(43) Date of publication of application: 20.04.2015	
(51) Int. Cl. D04H 3/011 D04H 3/16 B01D 36/06 A01J 31/06	(2012.01) (2006.01) (2006.01) (2006.01)
(21) Application number: 2013209682	(72) Inventor: YOKOYAMA TAKAFUMI KOO RUMINA OKAJIMA SHINICHI KATO KAZUFUMI
(22) Date of filing: 04.10.2013	
(71) Applicant: ASAHI KASEI FIBERS CORP	
(54) POLYESTER FILAMENT NONWOVEN FABRIC AND FILTER FOR FOOD OBTAINED BY USING THE SAME	
(57) Abstract:	
PROBLEM TO BE SOLVED: To provide a polyester filament nonwoven fabric, excellent in transparency, dimension stability and component extraction properties, and to provide a filter for food obtained by using the same.	
SOLUTION: The polyester filament nonwoven fabric comprises polyester filaments having a titanium element content of 1-100 ppm, an average fiber diameter of 15-40 μm , a birefringence of 0.03-0.08 and a crystallinity of 30-50%, and has a basis weight of 10-30 g/m ² . The filter for food comprises the polyester filament nonwoven fabric.	
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BIODEGRADABLE FILAMENT NONWOVEN FABRIC AND FILTER FOR FOOD OBTAINED BY USING THE SAME

PROBLEM TO BE SOLVED: To provide a biodegradable filament nonwoven fabric consisting of biodegradable filaments comprising a polylactic acid-based polymer that are almost completely degraded after use and are easily disposed, and being excellent in transparency, dimension stability and component extraction properties, and to provide a filter for food obtained by using the same.**SOLUTION:** The biodegradable filament nonwoven fabric comprises polylactic acid filaments that contain a polylactic acid-based polymer having a melting point of 150°C or more as a main component, have an average fiber diameter of 15-40 μm , a birefringence of 0.005-0.025 and a crystallinity of 30-50%, and has a basis weight of 10-30 g/m². The filter for food comprises the biodegradable filament nonwoven fabric.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015074842 A 20150420](#)

Applicant: ASAHI KASEI FIBERS CORP
Inventor: YOKOYAMA TAKAFUMI; KOO RUMINA;
OKAJIMA SHINICHI; KATO KAZUFUMI

Prio:
Appl.No: JP2013211006
IPC: D04H 3/011 2012.01 (IA)

(19)  JAPANESE PATENT OFFICE	
PATENT ABSTRACTS OF JAPAN	
(11) Publication number: 2015074842 A	
(43) Date of publication of application: 20.04.2015	
(51) Int. Cl. D04H 3/011 D04H 3/16 A01J 31/06	(2012.01) (2006.01) (2006.01)
(21) Application number: 2013211006	(72) Inventor: YOKOYAMA TAKAFUMI KOO RUMINA OKAJIMA SHINICHI KATO KAZUFUMI
(22) Date of filing: 08.10.2013	
(71) Applicant: ASAHI KASEI FIBERS CORP	
(54) BIODEGRADABLE FILAMENT NONWOVEN FABRIC AND FILTER FOR FOOD OBTAINED BY USING THE SAME	
(57) Abstract:	
PROBLEM TO BE SOLVED: To provide a biodegradable filament nonwoven fabric, consisting of biodegradable filaments comprising a polylactic acid-based polymer that are almost completely degraded after use and are easily disposed, and being excellent in transparency, dimension stability and component extraction properties, and to provide a filter for food obtained by using the same.	
SOLUTION: The biodegradable filament nonwoven fabric comprises polylactic acid filaments that contain a polylactic acid-based polymer having a melting point of 150°C or more as a main component, have an average fiber diameter of 15-40 μm , a birefringence of 0.005-0.025 and a crystallinity of 30-50%, and has a basis weight of 10-30 g/m ² . The filter for food comprises the biodegradable filament nonwoven fabric.	
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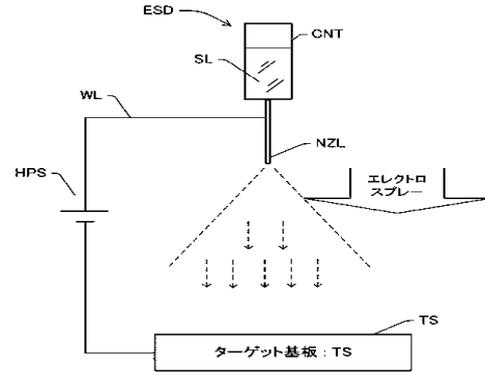
NANOFIBER STRUCTURE

PROBLEM TO BE SOLVED: To provide a nanofiber structure of polyimide having air permeability, moisture permeability and water resistance.**SOLUTION:** A transparent soluble polyimide resin is dissolved in N,N-dimethylacetamide to produce a sample solution with a concentration of 10 mass%. The sample solution is put in a container CNT to which a nozzle NZL is attached and the container is mounted on an apparatus shown in Fig. 1 to produce a nanofiber structure. The produced polyimide nanofiber structure has acquired excellent water resistance, moisture permeability and air permeability while maintaining physical properties intrinsic to polyimide, such as high heat resistance and insulation properties.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015074846 A 20150420](#)

Applicant: FYUUNSU:KK; KAWAMURA SANGYO CO LTD
Inventor: INOUE KOZO; NITTA KAZUYA; TANAKA KEIZO; NAGASHIMA YUTAKA; YAMADA SHUNSUKE

Prio:
Appl.No: JP2013211454
IPC: D04H 1/728 2012.01 (IA)



SHEET PRODUCTION APPARATUS, AND FIBRILLATION UNIT

PROBLEM TO BE SOLVED: To provide a sheet production apparatus including a fibrillation unit for fibrillating an object to be fibrillated, and producing a sheet having a practical strength by fibrillation without excessively reducing a fiber length in the fibrillation unit.**SOLUTION:** A sheet production apparatus includes a fibrillation unit in which an object to be fibrillated is subjected to a dry type fibrillation treatment by rotating a rotation unit. At least, a part of the object to be fibrillated, subjected to the dry type fibrillation treatment, is accumulated and heated to produce a sheet. In the rotation unit, a plurality of rotation plates each having a base part located at the side of a rotation axis and a plurality of protrusions protruded from the base part in a direction away from the rotation axis, are laminated so that the protrusions come in contact with each other in an extending direction of the rotation axis.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015074848 A 20150420](#)

Applicant: SEIKO EPSON CORP
Inventor: HIGUCHI NAOTAKA; YAMAGAMI TOSHIAKI; ABE NOBUMASA

Prio:
Appl.No: JP2013211677
IPC: D04H 1/736 2012.01 (IA)

(19) JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: 2015074848 A
 (43) Date of publication of application: 20.04.2015

(51) Int. Cl. D04H 1/736 (2012.01)

(21) Application number: 2013211677 (72) Inventor: HIGUCHI NAOTAKA; YAMAGAMI TOSHIAKI; ABE NOBUMASA
 (22) Date of filing: 09.10.2013
 (71) Applicant: SEIKO EPSON CORP

(54) SHEET PRODUCTION APPARATUS, AND FIBRILLATION UNIT

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a sheet production apparatus including a fibrillation unit for fibrillating an object to be fibrillated, and producing a sheet having a practical strength by fibrillation without excessively reducing a fiber length in the fibrillation unit.

SOLUTION: A sheet production apparatus includes a fibrillation unit in which an object to be fibrillated is subjected to a dry type fibrillation treatment by rotating a rotation unit. At least, a part of the object to be fibrillated, subjected to the dry type fibrillation treatment, is accumulated and heated to produce a sheet. In the rotation unit, a plurality of rotation plates each having a base part located at the side of a rotation axis and a plurality of protrusions protruded from the base part in a direction away from the rotation axis, are laminated so that the protrusions come in contact with each other in an extending direction of the rotation axis.

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NONWOVEN FLUORINE-BASED FIBER CLOTH MANUFACTURING METHOD

PROBLEM TO BE SOLVED: To provide a manufacturing method for a nonwoven fluorine-based fiber cloth capable of stably producing a nonwoven fluorine-based fiber cloth with little contamination of impurity by using an electrospinning method. **SOLUTION:** A manufacturing method for a nonwoven fluorine-based fiber cloth is based on an electrospinning method, and has a step to eject resin solution by making use of an electric potential difference in order to spin fibers into a yarn. The resin solution contains amorphous fluorine resin, fluorine-containing solvent, and a liquid dielectric constant improver with a dielectric constant of 5 to 200 F/m. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015074856 A 20150420](#)

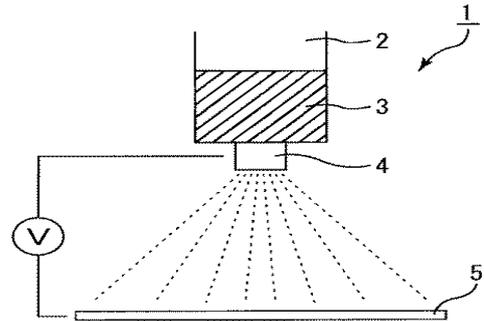
Applicant: GUNZE LTD; DU PONT MITSUI FLUOROCHEM CO LTD

Inventor: SAWAI KOSUKE; TERAOKA TAKURO; MUGISAWA MASAKI

Prio:

Appl.No: JP2013212992

IPC: D04H 1/4318 2012.01 (IA)



SHEET MANUFACTURING DEVICE AND SHEET MANUFACTURING METHOD

PROBLEM TO BE SOLVED: To provide a sheet manufacturing device capable of surely cutting a sheet. **SOLUTION:** A sheet manufacturing device includes: a formation part for at least forming a web in which fiber is accumulated; a cutting part for cutting the web; a detection part for detecting sagging of the web on a more upstream side in a web conveyance direction than the cutting part; a cutting part front roller for conveying the web by a roller on the more upstream side in the web conveyance direction than the cutting part; and a cutting part rear roller for conveying the web by the roller on a more downstream side in the web conveyance direction than the cutting part. The sheet manufacturing device has a control unit which, during a period before the cutting part rear roller starts to convey the web after the web is cut by the cutting part, makes the rotational speed of the cutting part front roller faster when sagging is larger compared to the case when sagging is small, and makes the rotational speed of the cutting part front roller slower when sagging is smaller compared to the case when sagging is large, and during a period before the cutting part cuts the web after the cutting part rear roller starts to convey the web, makes the cutting part front roller rotate more slowly than the cutting part rear roller. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015074857 A 20150420](#)

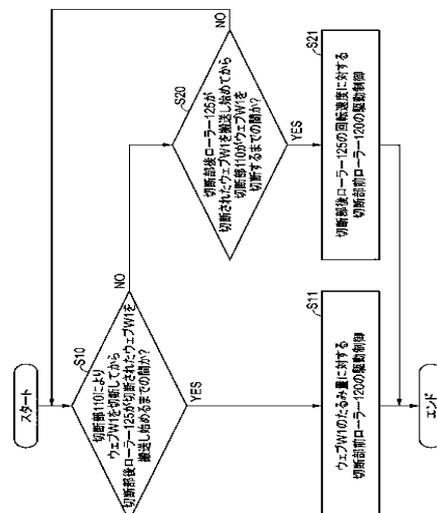
Applicant: SEIKO EPSON CORP

Inventor: MIYAZAWA KAZUMA; GOMI KATSUTO

Prio:

Appl.No: JP2013213481

IPC: D04H 1/736 2012.01 (IA)

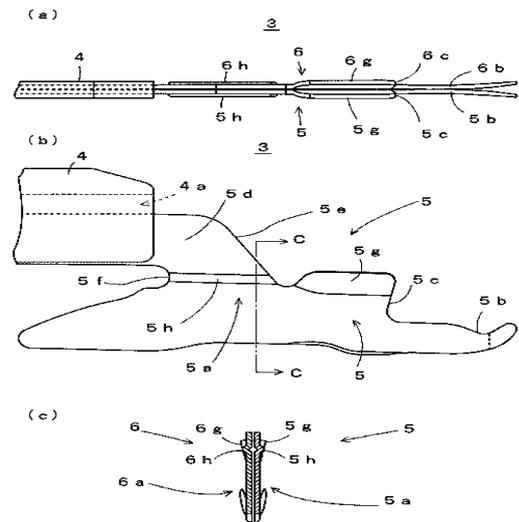


COMPOUND NEEDLE FOR FLAT KNITTING MACHINE

PROBLEM TO BE SOLVED: To provide a compound needle for a flat knitting machine capable of appropriately suppressing deflection of a blade in a width direction. **SOLUTION:** Reinforcement lines 5h and 6h are formed on two blades 5 and 6 included in a slider 3 to appropriately reinforce stiffness in a width direction. As shown in (b), the reinforcement line 5h on the blade 5 is formed on a part which is located above a part in an opening/closing part 5a accommodated in a slider groove 2c, and which shifts to a vicinity of a front edge 5e of an arm 5d. On the rear side of the part, a guide part 5f is also formed. As shown in (c), the reinforcement line 5h is bulged in a side cross section of the blade 5 outward in the width direction and forms a linear part extending in a longitudinal direction as shown in (a) and (b). The reinforcement line 6h of the blade 6 is also formed in the same way. Such linear parts can be easily formed by bending of metal thin plates made into the blades 5 and 6. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015074865 A 20150420](#)

Applicant: SHIMA SEIKI MFG LTD
Inventor: SONOMURA MINORU
Prio:
Appl.No: JP2013213865
IPC: D04B 35/06 2006.01 (IA)

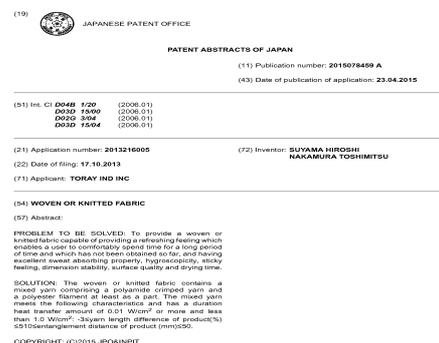


WOVEN OR KNITTED FABRIC

PROBLEM TO BE SOLVED: To provide a woven or knitted fabric capable of providing a refreshing feeling which enables a user to comfortably spend time for a long period of time and which has not been obtained so far, and having excellent sweat absorbing property, hygroscopicity, sticky feeling, dimension stability, surface quality and drying time. **SOLUTION:** The woven or knitted fabric contains a mixed yarn comprising a polyamide crimped yarn and a polyester filament at least as a part. The mixed yarn meets the following characteristics and has a duration heat transfer amount of $0.01 \text{ W/cm} < SP > 2 < / SP >$ or more and less than $1.0 \text{ W/cm} < SP > 2 < / SP >$; $-3 \leq \text{yarn length difference of product}(\%) \leq 510$; entanglement distance of product (mm) ≤ 50 . **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015078459 A 20150423](#)

Applicant: TORAY IND INC
Inventor: SUYAMA HIROSHI; NAKAMURA TOSHIMITSU
Prio:
Appl.No: JP2013216005
IPC: D04B 1/20 2006.01 (IA)

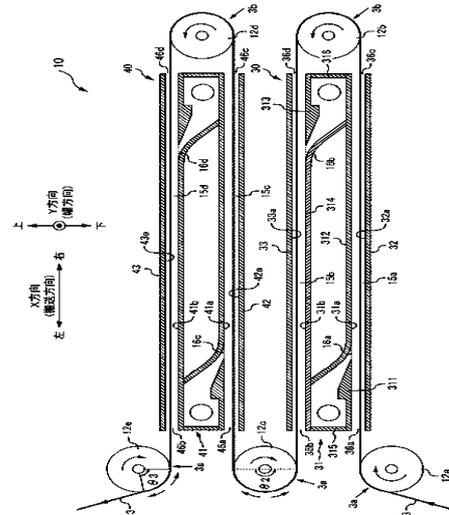


BULKINESS RECOVERY DEVICE FOR NONWOVEN FABRIC AND METHOD FOR BULKINESS RECOVERY OF NONWOVEN FABRIC

PROBLEM TO BE SOLVED: To provide a device and a method that lessen decreasing effect of bulkiness recovery of nonwoven fabric by heating.
SOLUTION: The device for bulkiness recovery for nonwoven fabric recovers bulkiness of nonwoven fabric by heating with blowing hot air and is composed of: a case unit where transporting space for nonwoven fabric is formed; a heating mechanism equipped with an injection port blowing hot air from one side to the other side in the direction of transportation of the nonwoven fabric in the transporting space and a discharge port contacting one side of both sides of the nonwoven fabric and discharging the hot air blowing along the direction of the transportation out of the transporting space; and a deformation mechanism which deforms the nonwoven fabric discharged from the case unit so that one side of the nonwoven fabric is convex.
 COPYRIGHT: (C)2015,JPO&INPIT

Publication: [JP 2015078465 A 20150423](#)

Applicant: UNI CHARM CORP
Inventor: OKUDA ATSUSHI; MITSUNO SATOSHI
Prio:
Appl.No: JP2013217198
IPC: D04H 1/736 2012.01 (IA)

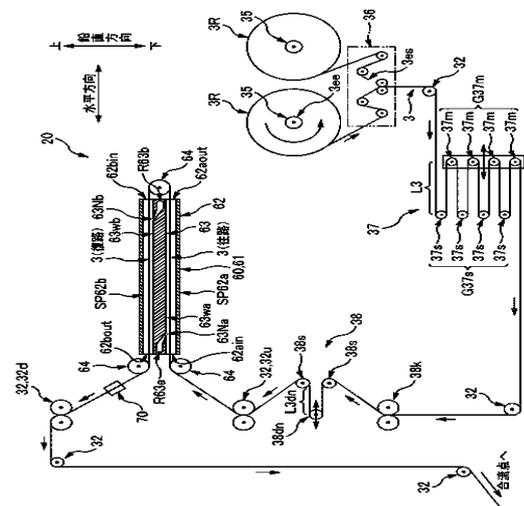


BULKINESS RECOVERY APPARATUS FOR NONWOVEN FABRIC AND BULKINESS RECOVERY METHOD

PROBLEM TO BE SOLVED: To suppress variation in size in a width direction of a nonwoven fabric which may occur in a bulkiness recovery apparatus.
SOLUTION: There is provided an apparatus for recovering bulkiness of a nonwoven fabric by blowing hot air to the nonwoven fabric to heat. The apparatus includes: a conveyance unit for conveying the nonwoven fabric that is continuous in a conveyance direction along the conveyance direction; a heating unit for heating the nonwoven fabric by blowing the hot air to the nonwoven fabric during conveyance; a width sensor for outputting information relating to a size in a width direction by measuring the size in the width direction of the nonwoven fabric in a position on a downstream side in the conveyance direction of the heating unit; and a controller for controlling at least one of the heating unit and the conveyance unit based on the information output from the width sensor.
 COPYRIGHT: (C)2015,JPO&INPIT

Publication: [JP 2015078466 A 20150423](#)

Applicant: UNI CHARM CORP
Inventor: HAYASHI TOMOKI; OYAMA HIDETAKA; OKUDA ATSUSHI; MITSUNO SATOSHI
Prio:
Appl.No: JP2013217207
IPC: D04H 1/736 2012.01 (IA)



IPC: D04H 1/736 2012.01 (IA)

YARN FEEDING DEVICE FOR TORCHON LACE MACHINE

PROBLEM TO BE SOLVED: To provide a yarn feeding device for a torchon lace machine which enables a carbon yarn to be fed to a knitting section without being fuzzed.**SOLUTION:** A yarn feeding device for a torchon lace machine of the present invention includes: a spindle 6 erected on a runner 4 moved along a track 3 by the rotation of a rotor metal 2; and an upright body 9 including a yarn port 11 for drawing out a carbon yarn K wound around a bobbin 7 rotatably inserted into the spindle 6, and a bobbin stopper 13. Rollers 17, 22 each having a yarn guide are provided on the base end side and the front end side, respectively, of a top head member 16 of the upright body 9. A roller 19 having a yarn guide is provided on a slide body 18 provided below the top head member 16 so as to be vertically slidable. While being made to have a U-shape between the rollers 17, 22 and the roller 19, the carbon yarn K can be fed to a knitting section. Thereby, the carbon yarn can be smoothly fed to the knitting section.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015078471 A 20150423](#)

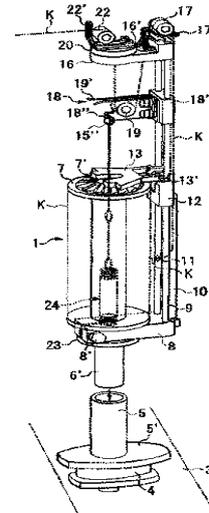
Applicant: ICHIKAWA TEKKO:KK

Inventor: ICHIKAWA MICHIIHIRO

Prio:

Appl.No: JP2013217591

IPC: D04C 3/48 2006.01 (IA)



NONWOVEN FABRIC AND REINFORCED LAMINATED BODY

PROBLEM TO BE SOLVED: To provide a nonwoven fabric in which flexibility, suppleness and a touch are improved, its own usage is expanded, and, in the case where it is used as a reinforcement material, followability to a surface shape of a reinforced body is improved.**SOLUTION:** A nonwoven fabric 1 is formed by warp-weft laminating uniaxially oriented bodies 2, 3 that comprise a thermoplastic resin layer and first and second adhesion layers laminated on both surfaces of the thermoplastic resin layer and having a melting point lower than that of the thermoplastic resin such that orientation axes 2a and 3a intersect via the first or the second adhesion layer, respectively. The nonwoven fabric has a basis weight of 5-13 g/m², the layer constitutional ratios of the first adhesion layer, the thermoplastic resin layer and the second adhesion layer in the uniaxially oriented body is 20/60/20-30/40/30, and an average of bending resistance measured by a cantilever method is 50 mm or less. By being flexible and supple, the nonwoven fabric can be utilized for various uses, such as a packing material for easily damaged products and a use requiring a good touch, for which a conventional nonwoven fabric has been unable to be used, and in the case where it is used as a reinforcement material, followability to a surface shape of a reinforced body is improved.**COPYRIGHT:** (C)2015,JPO&INPIT

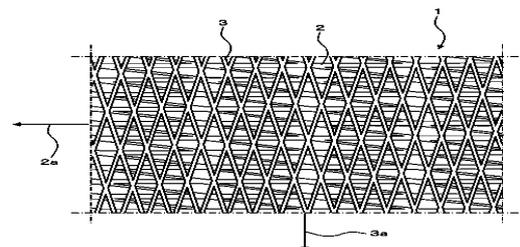
Publication: [JP 2015078473 A 20150423](#)

Applicant: JX NIPPON OIL & ENERGY CORP

Inventor: SUZUKI TOKUHITO; ONODERA TAKASHI;
YAMADA JUN

Prio:

Appl.No: JP2013217739



IPC: D04H 13/02 2006.01 (IA)

INORGANIC FIBER MAT AND METHOD FOR PRODUCING THE SAME

PROBLEM TO BE SOLVED: To provide an inorganic fiber mat in which water resistance or hydrolysis resistance is improved and a method for producing the same.**SOLUTION:** The method for producing an inorganic fiber mat includes attaching an aqueous binder and reactive silicone oil to inorganic fibers. The aqueous binder contains: a (co)polymer (A) having at least two selected from a carboxyl group and an acid anhydride group; a cross-linker (B) containing a compound (B1) having at least two functional groups selected from a hydroxyl group, an amino group, and an imino group; and water.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [**JP 2015081386 A 20150427**](#)

Applicant: NICHIAS CORP
Inventor: OIKAWA JUN; OMURA MUTSUMI; WATANABE TAKANORI

Prio:
Appl.No: JP2013218581
IPC: D04H 1/587 2012.01 (IA)

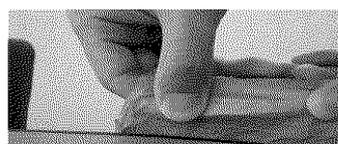


NANOFIBER NONWOVEN FABRIC CONTAINING METAL OXIDE AS MAIN COMPONENT

PROBLEM TO BE SOLVED: To provide a nanofiber nonwoven fabric containing a metal oxide as a main component that is excellent in flexibility and tensile strength.**SOLUTION:** The nanofiber nonwoven fabric is mainly composed of a nanofiber containing a metal oxide as a main component and having a fiber diameter of 0.2 μm to 1.0 μm , and has a flexural rigidity of 0.01 to 0.05 $\times 10^{-4}$ NM $\times 2$ /m and a flexural hysteresis of 0.01 to 0.20 $\times 10^{-2}$ NM/m. The component constituting the nanofiber may have an amorphous structure or the component constituting the nanofiber may comprise a crystal phase having a crystallite diameter of 2.4 to 11.8 nm.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [**JP 2015081392 A 20150427**](#)

Applicant: NITIVY CO LTD
Inventor: HARAJIRI KOMEI
Prio:
Appl.No: JP2013219658
IPC: D04H 1/4209 2012.01 (IA)

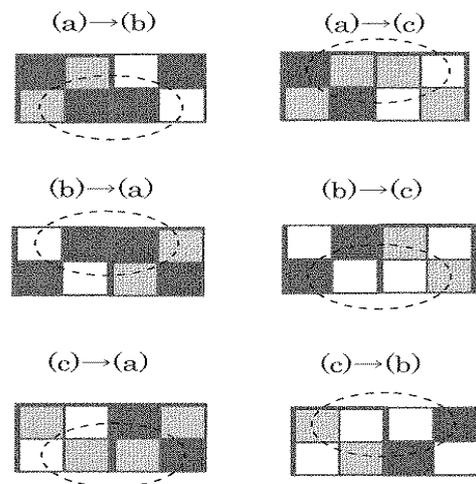


KNITTED FABRIC WITH REDUCED STITCH DIVISION, METHOD FOR KNITTING THE SAME, AND DESIGN SYSTEM UTILIZING THE METHOD FOR KNITTING

PROBLEM TO BE SOLVED: To provide a method for knitting a knitted fabric which does not change a surface pattern of a knitted fabric and reduces stitch divisions in a pattern in which boundaries between motifs in a wale direction are continuous in the wale direction in a plurality of consecutive courses, and to provide the knitted fabric.
SOLUTION: The method includes knitting a surface pattern of a knitted fabric in which boundaries between motifs in a wale direction are continuous in a same position in the wale direction in a plurality of consecutive courses with either one of a cylinder or a dial and knitting a rear surface of the knitted fabric with remained other one by a double side electronic needle selection circular knitting machine. Knitting is performed in such a manner that an adjacent knitted structure is knitted in the rear surface of the knitted fabric consecutively to a boundary line 5 in the wale direction formed by the boundaries between motifs on the surface of the knitted fabric in at least 1 course in consecutive courses, the number of which is less than the number of kinds of Jacquard knit yarns used.
COPYRIGHT: (C)2015,JPO&INPIT

Publication: [JP 2015083730 A 20150430](#)

Applicant: PRECISION FUKUHARA WORKS LTD
Inventor: TSUJISATO ATSUSHI; TSUJISATO YOKO
Prio: JP 20130917 2013191349
Appl.No: JP2014121204
IPC: D04B 1/10 2006.01 (IA)

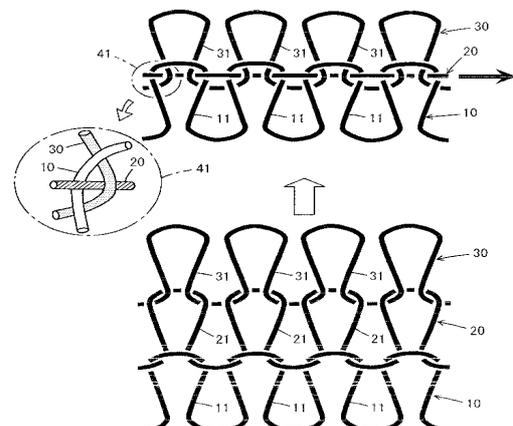


START METHOD OF KNITTING PERFORMED ON FLAT KNITTING MACHINE

[Configuration] On a flat knitting machine having at least two needle beds, respectively, front and rear, bottom stitch columns are knitted continuously on columns of draw yarn. After stitch columns are knitted on columns of draw yarn, stitch columns on draw yarn is transferred to an opposing needle bed which is across the gap between needle beds; then, by a thread other than one in draw yarn, bottom stitch columns are knitted continuously on columns of draw yarn, such that stitches on drawn yarn and stitches on bottom stitch columns can have the opposed surfaces with each other. [Effect] Where draw yarn is drawn out, draw yarn between stitches on bottom stitch columns and stitches on a previous knitted fabric can have a line shape, such that draw yarn can be drawn out easily.

Publication: [KR 20150033560 A 20150401](#)

Applicant: SHIMA SEIKI MFG., LTD., JP; SHIMA CO., LTD., JP
Inventor: OKAMOTO KAZUYOSHI, JP; MORIMOTO SHINYA, JP
Prio: JP 20130924 2013 2013196521
Appl.No: KR1020140125731
IPC: D04B 7/28 2006.01 (IA)



METHOD FOR MANUFACTURING SPUNBONDED NON-WOVEN FABRIC FOR CARPET BACKING FABRIC WITH IMPROVED TUFTING PROPERTY

The present invention relates to a method for manufacturing a spunbonded non-woven fabric for a tufted carpet backing fabric having a simple manufacturing process by not using a binder resin but using a long fiber needle punching method, comprising: blending and spinning a first filament manufactured by polyester having a melting point of more than or equal to 255°C and a second filament manufactured by low melting point copolyester having a melting point of 40 °C or more lower than that of the first filament; web-laminating the blended and spun first and second filaments; needle-punching the web-laminated filaments through a calendar process; and heat-adhering the needle-punched filaments with hot air. According to the present invention, the spunbonded non-woven fabric is manufactured by the heat-adhering method using the hot air, thereby preventing omission of a binder resin component and tight connections between tufting needles during tufting; reducing punching resistivity; having excellent tufting and workability performance; manufacturing the spunbonded non-woven for a carpet backing fabric having less degradation of physical properties and less tufting needle abrasion after tufting; and reducing manufacturing costs by not using the binder resin.

Publication: [KR 20150035138 A 20150406](#)

Applicant: KOLON INDUSTRIES, INC., KR
Inventor: KIM, JIN IL, KR; LEE, MIN HO, KR; CHOI, JIN HWAN, KR; CHO, HEE JUNG, KR

Prio:
Appl.No: KR1020130115359
IPC: D04H 3/153 2012.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS
 (11) Publication number: 1020150035138 A
 (43) Publication date: 06.04.2015

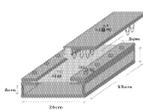
(51) Int. Cl. D04H 3/153 (2012.01)
 D04H 2011 (2012.01)
 D04H 3/165 (2012.01)

(21) Application number: 1020130115359 (72) Inventor: KIM, JIN IL (KR)
 LEE, MIN HO (KR)
 CHOI, JIN HWAN (KR)
 CHO, HEE JUNG (KR)

(22) Application date: 27.09.2013 (71) Applicant: KOLON INDUSTRIES, INC. (KR)

(54) METHOD FOR MANUFACTURING SPUNBONDED NON-WOVEN FABRIC FOR CARPET BACKING FABRIC WITH IMPROVED TUFTING PROPERTY

(57) Abstract:
 The present invention relates to a method for manufacturing a spunbonded non-woven fabric for a tufted carpet backing fabric having a simple manufacturing process by not using a binder resin but using a long fiber needle punching method, comprising: blending and spinning a first filament manufactured by polyester having a melting point of more than or equal to 255°C and a second filament manufactured by low melting point copolyester having a melting point of 40 °C or more lower than that of the first filament; web-laminating the blended and spun first and second filaments; needle-punching the web-laminated filaments through a calendar process; and heat-adhering the needle-punched filaments with hot air. According to the present invention, the spunbonded non-woven fabric is manufactured by the heat-adhering method using the hot air, thereby preventing omission of a binder resin component and tight connections between tufting needles during tufting; reducing punching resistivity; having excellent tufting and workability performance; manufacturing the spunbonded non-woven for a carpet backing fabric having less degradation of physical properties and less tufting needle abrasion after tufting; and reducing manufacturing costs by not using the binder resin.



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- (CC) Specimen
- (BB) Figure
- (AA) Needle bar

NON-WOVEN WEB WITH IMPROVED MECHANICAL AND SHRINKING PROPERTIES AND METHOD OF MANUFACTURING SAME

The present invention provides a non-woven web, which is manufactured by fibrils which have surface-modified nanoparticles distributed uniformly, and in which the nanoparticles serve as a reinforcement material to improve mechanical properties of a non-woven web, and which has surface-modified nanoparticles to further improve shrinking properties thereof. The non-woven web according to the present invention is also suitable for a separation membrane of a secondary battery.

Publication: [KR 20150037391 A 20150408](#)

Applicant: LG CHEM. LTD., KR
Inventor: LIM, JUNG HO, KR; YOON, KYUNG HWAN, KR; KANG, JEONG AN, KR

Prio:
Appl.No: KR1020130116924
IPC: D04H 1/42 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS
 (11) Publication number: 1020150037391 A
 (43) Publication date: 08.04.2015

(51) Int. Cl. D04H 1/42 (2006.01)
 D04H 1/70 (2006.01)
 D04H 1/422 (2012.01)
 D04H 2/14 (2006.01)

(21) Application number: 1020130116924 (72) Inventor: LIM, JUNG HO (KR)
 YOON, KYUNG HWAN (KR)
 KANG, JEONG AN (KR)

(22) Application date: 30.09.2013 (71) Applicant: LG CHEM. LTD. (KR)

(54) NON-WOVEN WEB WITH IMPROVED MECHANICAL AND SHRINKING PROPERTIES AND METHOD OF MANUFACTURING SAME

(57) Abstract:
 The present invention provides a non-woven web, which is manufactured by fibrils which have surface-modified nanoparticles distributed uniformly, and in which the nanoparticles serve as a reinforcement material to improve mechanical properties of a non-woven web, and which has surface-modified nanoparticles to further improve shrinking properties thereof. The non-woven web according to the present invention is also suitable for a separation membrane of a secondary battery.

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HIGH-DENSITY CARBON NANOFIBER FELT WITH UNIDIRECTIONAL ORIENTATION AND APPLIED PRODUCTS OF CARBON NANOFIBER FELT INCLUDING SAME

The present invention relates to a high-density carbon nanofiber felt and, more specifically, to a carbon nanofiber felt with unidirectional orientation, a manufacturing method for the carbon nanofiber felt and applied products including the carbon nanofiber felt. According to an embodiment of the present invention, the carbon nanofiber felt has a diameter of 50 to 400 nm and a density of 0.7407 g/cm³; to 2.0 g/cm³;

Publication: [KR 20150037794 A 20150408](#)

Applicant: INDUSTRY FOUNDATION OF CHONNAM NATIONAL UNIVERSITY, KR

Inventor: YANG, KAP SEUNG, KR; KIM, BO HYE, KR; KIM, CHANG HYO, KR; KIM, DOO WON, KR

Prio: KR 20121023 1020120117713

Appl.No: KR1020150038772

IPC: D04H 1/74 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150037794 A
(43) Publication date: 08.04.2015

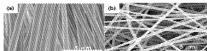
(51) Int. Cl. **D04H 1/74** (2006.01)
D04H 1/282 (2012.01)
D04H 1/282 (2012.01)
D04H 1/729 (2012.01)
D06C 7/04 (2006.01)

(21) Application number: 1020150038772
(22) Application date: 20.03.2015
(30) Priority: 23.10.2012 KR 1020120117713
(71) Applicant: INDUSTRY FOUNDATION OF CHONNAM NATIONAL UNIVERSITY (KR)

(72) Inventor: YANG, KAP SEUNG (KR)
KIM, BO HYE (KR)
KIM, CHANG HYO (KR)
KIM, DOO WON (KR)

(54) HIGH-DENSITY CARBON NANOFIBER FELT WITH UNIDIRECTIONAL ORIENTATION AND APPLIED PRODUCTS OF CARBON NANOFIBER FELT INCLUDING SAME

(57) Abstract:
The present invention relates to a high-density carbon nanofiber felt and, more specifically, to a carbon nanofiber felt with unidirectional orientation, a manufacturing method for the carbon nanofiber felt and applied products including the carbon nanofiber felt. According to an embodiment of the present invention, the carbon nanofiber felt has a diameter of 50 to 400 nm and a density of 0.7407 g/cm³ to 2.0 g/cm³.



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MANUFACTURING METHOD OF HIGH STRENGTH NANOFIBERS USING MICROWAVE AND HIGH STRENGTH NANOFIBERS MANUFACTURED THEREBY

The present invention relates to a manufacturing method of high-strength nanofibers using heating by a microwave. According to the invention, the high strength of the nanofibers is improved by the following processes: a junction structure with the adjacent nanofibers is formed or recrystallization of a polymer chain is induced by irradiating the nanofibers which are manufactured by an electrospinning method in a wetting condition; and residue solvents and byproducts in the electrospun nanofibers are removed.

Publication: [KR 20150039967 A 20150414](#)

Applicant: INDUSTRIAL COOPERATION FOUNDATION CHONBUK NATIONAL UNIVERSITY, KR

Inventor: KIM, SEONG SU, KR; OH, HYUN JU, KR

Prio:

Appl.No: KR1020130118416

IPC: D04H 1/728 2012.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150039967 A
(43) Publication date: 14.04.2015

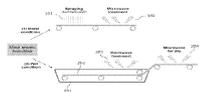
(51) Int. Cl. **D04H 1/728** (2012.01)
D06M 10/00 (2006.01)

(21) Application number: 1020130118416
(22) Application date: 04.10.2013
(71) Applicant: INDUSTRIAL COOPERATION FOUNDATION CHONBUK NATIONAL UNIVERSITY (KR)

(72) Inventor: KIM, SEONG SU (KR)
OH, HYUN JU (KR)

(54) MANUFACTURING METHOD OF HIGH STRENGTH NANOFIBERS USING MICROWAVE AND HIGH STRENGTH NANOFIBERS MANUFACTURED THEREBY

(57) Abstract:
The present invention relates to a manufacturing method of high-strength nanofibers using heating by a microwave. According to the invention, the high strength of the nanofibers is improved by the following processes: a junction structure with the adjacent nanofibers is formed or recrystallization of a polymer chain is induced by irradiating the nanofibers which are manufactured by an electrospinning method in a wetting condition; and residue solvents and byproducts in the electrospun nanofibers are removed.



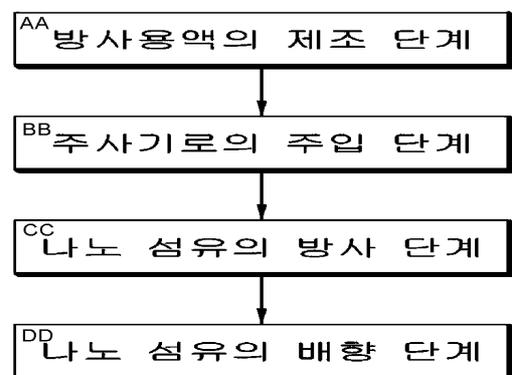
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METHOD AND APPARATUS FOR PREPARING NON-WOVEN MATERIAL, NON-WOVEN MATERIAL PREPARED THEREBY, SEPARATING FILM FOR BATTERY, AND ELECTROCHEMICAL BATTERY INCLUDING SAME NON-WOVEN MATERIAL

The present invention relates to a method and an apparatus for preparing a non-woven material using an electrospinning method, and uses thereof. According to one aspect of the invention, the method comprises: a step of preparing a spinning solution by dissolving a raw material of the non-woven material in a solution; a step of injecting the spinning solution into a syringe of a positive electrode; a step of spinning nanofibers in a rotary collector of the negative electrode having a certain rotating speed; and a step of stacking the spun nanofibers on the collector, and aligning the nanofibers in a rotary direction of the collector. According to another aspect of the invention, the apparatus comprises: a reservoir for storing a spinning solution; a positive electrode syringe for receiving the spinning solution from the reservoir; a pump for pumping the spinning solution from the syringe; a negative electrode rotary collector for receiving the spinning solution from the pump; a rotating controller for controlling the rotating speed of the collector; and a power supply for supplying the power to the syringe, the pump, the collector and the rotating controller. According to the present invention, a non-woven material is manufactured in a simple manner, capable of adjusting its thickness, and has high mechanical properties.

Publication: [KR 20150040114 A 20150414](#)

Applicant: LG CHEM. LTD., KR
Inventor: LIM, JUNG HO, KR; SONG, HEON SIK, KR; KIM, KYOUNG MIN, KR
Prio:
Appl.No: KR1020130118717
IPC: D04H 1/728 2012.01 (IA)

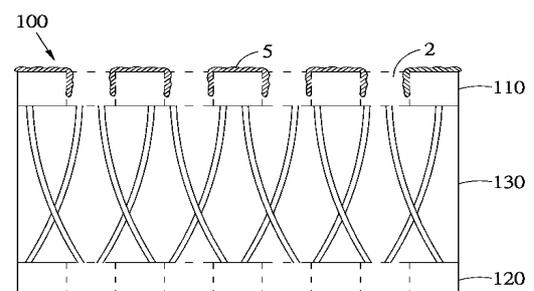


REUSABLE VENTILATING FABRIC STRUCTURE AND ASSEMBLY THEREOF

Disclosed are a reusable ventilating fabric structure and an assembly thereof. The reusable ventilating fabric structure includes a three-dimensional ventilating sheet and thermoplastic material. The three-dimensional ventilating sheet includes two ventilating outer layers. The two ventilating outer layers have a plurality of pores. The thermoplastic material is furnished on sidewalls of the pores in one of the ventilating outer layers of the three-dimensional ventilating sheet.

Publication: [KR 20150040183 A 20150414](#)

Applicant: JADE LONG JOHN ENTERPRISE CO., LTD., TW
Inventor: WEN WEN TSAO, TW
Prio: TW 20131004 2013 102136127
Appl.No: KR1020130145237
IPC: D04B 21/14 2006.01 (IA)

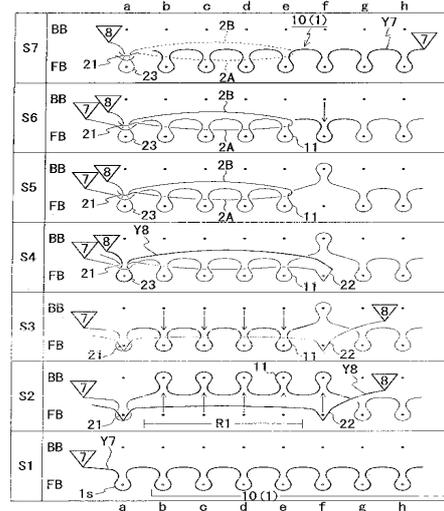


METHOD FOR KNITTING KNITTED FABRIC

The present invention provides a method for knitting knitted fabrics with a blanket stitch decoration using a flat-knitting machine. To complete the base knitted fabric (1) by continuing a plurality base stitch lines (10) in wale direction, repeat the following processes multiple times: process α , wherein starting point stitch (21) is formed on the outer side of the end of base knitted fabric (1) using decoration yarn (Y8); process β , wherein the decoration yarn (Y8) which extends from starting point stitch (21) is returned from an more inner position of width direction than the turn-around stitch (11) which is a stitch of base stitch line (10), and the turn-around stitch (11) is inserted from both sides by the decoration yarn (Y8); process γ , wherein fixed stitch (23) is formed by continuing in wale direction of the starting point stitch (21), and finally the edge of base knitted stitch (1) is decorated with decoration yarn (Y8). If n is a natural number of 1 or more, the starting point stitch (21) of n+1 times is formed in the position continuing in the direction of wale of the starting point stitch (21) of n times.

Publication: [KR 20150040226 A 20150414](#)

Applicant: SHIMA SEIKI MFG., LTD., JP
Inventor: UEMICHI KAZUYA, JP
Prio: JP 20131004 2013 2013209566
Appl.No: KR1020140132926
IPC: D04B 7/28 2006.01 (IA)

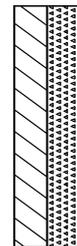


FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBERS AND MANUFACTURING METHOD THEREOF

The present invention is to provide a filter including polyvinylidene fluoride nanofibers and a manufacturing method thereof. The filter is manufactured by continuously arranging a polyvinylidene fluoride solution on a cellulose substrate by an electrospinning device consisting of two or more units. The filter manufactured by the method can perform a continuous process, thereby having advantages of efficiency of the process and mass production. Also, the filter has excellent filtration efficiency by having a nanofiber non-woven fabric.

Publication: [KR 20150040676 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119472
IPC: D04H 1/559 2012.01 (IA)



AA
 폴리비닐리덴 플루오라이드 나노섬유 부직포
 셀룰로오스 기재

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBERS AND BICOMPONENT SUBSTRATE AND MANUFACTURING METHOD THEREOF

The present invention relates to a filter including polyvinylidene fluoride nanofibers and a bicomponent substrate, and to a manufacturing method thereof. The present invention is to provide a filter manufactured by arranging polyvinylidene fluoride nanofibers on one side of a bicomponent substrate by electrospinning, and connecting a polyethylene terephthalate substrate on the other side of the bicomponent substrate. The filter manufactured by the method has excellent filtration efficiency and durability since the filter has a long life. Also, the filter can prevent a nanofiber non-woven fabric and the substrate from being separated by using the bicomponent substrate.

Publication: [KR 20150040677 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119473
IPC: D04H 1/559 2012.01 (IA)

(19)  KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150040677 A
(43) Publication date: 15.04.2015

(51) Int. Cl. **D04H 1/559** (2012.01)
B01D 29/08 (2006.01)
B22F 27/12 (2006.01)
D04H 1/4274 (2012.01)
D04H 1/4382 (2012.01)
D04H 1/728 (2012.01)

(21) Application number: 1020130119473 (71) Applicant: FINETEX ENE. INC. (KR)
(22) Application date: 07.10.2013 (72) Inventor: PARK, JONG CHEOL (KR)

(54) **FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBERS AND BICOMPONENT SUBSTRATE AND MANUFACTURING METHOD THEREOF**

(57) Abstract:
The present invention relates to a filter including polyvinylidene fluoride nanofibers and a bicomponent substrate, and to a manufacturing method thereof. The present invention is to provide a filter manufactured by arranging polyvinylidene fluoride nanofibers on one side of a bicomponent substrate by electrospinning, and connecting a polyethylene terephthalate substrate on the other side of the bicomponent substrate. The filter manufactured by the method has excellent filtration efficiency and durability since the filter has a long life. Also, the filter can prevent a nanofiber non-woven fabric and the substrate from being separated by using the bicomponent substrate.



AA
BB
CC

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- (AA) Polyvinylidene fluoride nanofiber non-woven fabric
- (BB) Bicomponent base material
- (CC) PET base material

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBERS AND BICOMPONENT SUBSTRATE AND MANUFACTURING METHOD THEREOF

The present invention relates to a filter including polyvinylidene fluoride nanofibers and a bicomponent substrate, and to a manufacturing method thereof. The present invention is to provide a filter manufactured by arranging polyvinylidene fluoride nanofibers on a bicomponent substrate by electrospinning. The filter manufactured by the method features that elimination between the bicomponent substrate and a nanofiber non-woven fabric does not occur without using an adhesive such as a hotmelt or the like.

Publication: [KR 20150040678 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119474
IPC: D04H 1/559 2012.01 (IA)

(19)  KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150040678 A
(43) Publication date: 15.04.2015

(51) Int. Cl. **D04H 1/559** (2012.01)
B01D 29/08 (2006.01)
B22F 27/12 (2006.01)
D04H 1/4274 (2012.01)
D04H 1/4382 (2012.01)
D04H 1/728 (2012.01)

(21) Application number: 1020130119474 (71) Applicant: FINETEX ENE. INC. (KR)
(22) Application date: 07.10.2013 (72) Inventor: PARK, JONG CHEOL (KR)

(54) **FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBERS AND BICOMPONENT SUBSTRATE AND MANUFACTURING METHOD THEREOF**

(57) Abstract:
The present invention relates to a filter including polyvinylidene fluoride nanofibers and a bicomponent substrate, and to a manufacturing method thereof. The present invention is to provide a filter manufactured by arranging polyvinylidene fluoride nanofibers on a bicomponent substrate by electrospinning. The filter manufactured by the method features that elimination between the bicomponent substrate and a nanofiber non-woven fabric does not occur without using an adhesive such as a hotmelt or the like.



BB
AA

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- (BB) Bicomponent base material
- (AA) Polyvinylidene fluoride nanofiber non-woven fabric

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBERS AND MANUFACTURING METHOD THEREOF

The present invention is to provide a filter including polyvinylidene fluoride nanofibers and a manufacturing method thereof. After electrospinning a solution which mixes high melting point polyvinylidene fluoride and low melting point polyvinylidene fluoride on a bicomponent substrate, the bicomponent substrate and a polyethylene terephthalate substrate are welded by heat.

Publication: [KR 20150040679 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119475
IPC: D04H 1/559 2012.01 (IA)

(19)  KOREAN INTELLECTUAL PROPERTY OFFICE

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D04H 1/4262 (2012.01)
D04H 1/728 (2012.01)

(21) Application number: 1020130119475 (71) Applicant: FINETEX ENE. INC. (KR)
(22) Application date: 07.10.2013 (72) Inventor: PARK, JONG CHEOL (KR)

(54) **FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBERS AND MANUFACTURING METHOD THEREOF**

(57) Abstract:
The present invention is to provide a filter including polyvinylidene fluoride nanofibers and a manufacturing method thereof. After electrospinning a solution which mixes high melting point polyvinylidene fluoride and low melting point polyvinylidene fluoride on a bicomponent substrate, the bicomponent substrate and a polyethylene terephthalate substrate are welded by heat.



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- (AA) High melting point and low melting point polyvinylidene fluoride nanofiber non-woven fabric.
- (BB) Bicomponent base material
- (CC) PET base material

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBERS AND MANUFACTURING METHOD THEREOF

The present invention is to provide a filter including polyvinylidene fluoride nanofibers and a manufacturing method thereof. After electrospinning a solution which mixes high melting point polyvinylidene fluoride and low melting point polyvinylidene fluoride on a bicomponent substrate, the bicomponent substrate and a needle felt type polyethylene terephthalate substrate are welded by heat.

Publication: [KR 20150040680 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119476
IPC: D04H 1/559 2012.01 (IA)

(19)  KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150040680 A
(43) Publication date: 15.04.2015

(51) Int. Cl. **D04H 1/559** (2012.01)
B01D 28/08 (2006.01)
D04H 1/4374 (2012.01)
D04H 1/4262 (2012.01)
D04H 1/728 (2012.01)

(21) Application number: 1020130119476 (71) Applicant: FINETEX ENE. INC. (KR)
(22) Application date: 07.10.2013 (72) Inventor: PARK, JONG CHEOL (KR)

(54) **FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBERS AND MANUFACTURING METHOD THEREOF**

(57) Abstract:
The present invention is to provide a filter including polyvinylidene fluoride nanofibers and a manufacturing method thereof. After electrospinning a solution which mixes high melting point polyvinylidene fluoride and low melting point polyvinylidene fluoride on a bicomponent substrate, the bicomponent substrate and a needle felt type polyethylene terephthalate substrate are welded by heat.



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- (AA) High melting point and low melting point polyvinylidene fluoride nanofiber non-woven fabric.
- (BB) Bicomponent base material
- (CC) Needle felt type PET base material

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER HAVING MULTI FIBER-DIAMETER GROUP AND MANUFACTURING METHOD THEREOF

The present invention relates to a filter including polyvinylidene fluoride nanofibers having a multi fiber-diameter group and to a manufacturing method thereof. Provided is a filter manufactured that after two polyvinylidene fluoride nanofiber non-woven fabrics having different fiber-diameter are consecutively arranged in layers on one side surface of a first polyethylene terephthalate substrate by electrospinning, a second polyethylene terephthalate substrate is bound to the other side surface of the first polyethylene terephthalate substrate. The filter of the present invention has two polyvinylidene fluoride nanofiber non-woven fabrics having different fiber-diameter, thereby having high filtration efficiency and long life since pressure drop is low. Also, two nanofiber non-woven fabrics can be manufactured by consecutive electrospinning, and efficiency of a process and mass-production of the filter are feasible.

Publication: [KR 20150040681 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119477
IPC: D04H 1/559 2012.01 (IA)

(19)  KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150040681 A
 (43) Publication date: 15.04.2015

(51) Int. Cl. **D04H 1/558** (2012.01)
B01D 29/08 (2006.01)
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D04H 1/4374 (2012.01)
D04H 1/4382 (2012.01)
D04H 1/728 (2012.01)

(21) Application number: 1020130119477 (71) Applicant: FINETEX ENE. INC. (KR)
 (22) Application date: 07.10.2013 (72) Inventor: PARK, JONG CHEOL (KR)

(54) FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER HAVING MULTI FIBER-DIAMETER GROUP AND MANUFACTURING METHOD THEREOF

(57) Abstract:
 The present invention relates to a filter including polyvinylidene fluoride nanofibers having a multi fiber-diameter group and to a manufacturing method thereof. Provided is a filter manufactured that after two polyvinylidene fluoride nanofiber non-woven fabrics having different fiber-diameter are consecutively arranged in layers on one side surface of a first polyethylene terephthalate substrate by electrospinning, a second polyethylene terephthalate substrate is bound to the other side surface of the first polyethylene terephthalate substrate. The filter of the present invention has two polyvinylidene fluoride nanofiber non-woven fabrics having different fiber-diameter, thereby having high filtration efficiency and long life since pressure drop is low. Also, two nanofiber non-woven fabrics can be manufactured by consecutive electrospinning, and efficiency of a process and mass-production of the filter are feasible.



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- (AA) Second polyvinylidene fluoride nanofiber non-woven fabric
- (BB) First polyvinylidene fluoride nanofiber non-woven fabric
- (CC) First PET base material
- (DD) Second PET base material

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBERS AND BICOMPONENT SUBSTRATE AND MANUFACTURING METHOD THEREOF

The present invention relates to a filter including polyvinylidene fluoride nanofibers and a bicomponent substrate, and to a manufacturing method thereof. The present invention is to provide a filter manufactured by electrospinning a polyvinylidene fluoride solution on one side of a first bicomponent substrate, arranging a polyvinylidene fluoride nanofiber non-woven fabric, and connecting a second bicomponent substrate on the other side of the first bicomponent substrate. The filter manufactured by the method can prevent the nanofiber non-woven fabric and the substrate from being separated without using an adhesive such as a hotmelt or the like.

Publication: [KR 20150040682 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119478
IPC: D04H 1/559 2012.01 (IA)

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D04H 1/4374 (2012.01)
D04H 1/4382 (2012.01)
D04H 1/728 (2012.01)

(21) Application number: 1020130119478 (71) Applicant: FINETEX ENE. INC. (KR)
 (22) Application date: 07.10.2013 (72) Inventor: PARK, JONG CHEOL (KR)

(54) FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBERS AND BICOMPONENT SUBSTRATE AND MANUFACTURING METHOD THEREOF

(57) Abstract:
 The present invention relates to a filter including polyvinylidene fluoride nanofibers and a bicomponent substrate, and to a manufacturing method thereof. The present invention is to provide a filter manufactured by electrospinning a polyvinylidene fluoride solution on one side of a first bicomponent substrate, arranging a polyvinylidene fluoride nanofiber non-woven fabric, and connecting a second bicomponent substrate on the other side of the first bicomponent substrate. The filter manufactured by the method can prevent the nanofiber non-woven fabric and the substrate from being separated without using an adhesive such as a hotmelt or the like.



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- (AA) Polyvinylidene fluoride nanofiber non-woven fabric
- (BB) First bicomponent base material
- (CC) Second bicomponent base material

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MELTBLOWN NON-WOVEN FABRIC AND MANUFACTURING METHOD THEREOF

The present invention is to provide a filter including polyvinylidene fluoride nanofibers and a meltblown non-woven fabric. A polyvinylidene fluoride nanofiber non-woven fabric layer is formed on a biocomponent substrate. Also, a polyethylene terephthalate substrate is formed on the other surface of the biocomponent substrate, and the meltblown non-woven fabric is formed on one surface of the polyvinylidene fluoride nanofiber non-woven fabric layer.

Publication: [KR 20150040683 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119479
IPC: D04H 1/559 2012.01 (IA)

(19)  KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

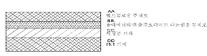
(11) Publication number: 1020150040683 A
 (43) Publication date: 15.04.2015

(51) Int. Cl. **D04H 1/559** (2012.01)
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B32B 27/12 (2006.01)
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D04H 1/482 (2012.01)
D04H 1/728 (2012.01)

(21) Application number: 1020130119479 (71) Applicant: FINETEX ENE. INC. (KR)
 (22) Application date: 07.10.2013 (72) Inventor: PARK, JONG CHEOL (KR)

(54) FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MELTBLOWN NON-WOVEN FABRIC AND MANUFACTURING METHOD THEREOF

(57) Abstract:
 The present invention is to provide a filter including polyvinylidene fluoride nanofiber and a meltblown non-woven fabric. A polyvinylidene fluoride nanofiber non-woven fabric layer is formed on a biocomponent substrate. Also, a polyethylene terephthalate substrate is formed on the other surface of the biocomponent substrate, and the meltblown non-woven fabric is formed on one surface of the polyvinylidene fluoride nanofiber non-woven fabric layer.



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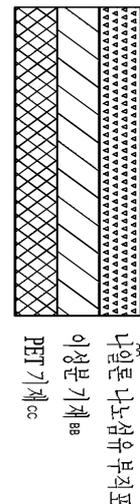
- (AA) Meltblown non-woven fabric
- (BB) Polyvinylidene fluoride nanofiber non-woven fabric
- (CC) Biocomponent base material
- (DD) PET base material

FILTER INCLUDING NYLON NANOFIBER AND BICOMPONENT SUBSTRATE AND MANUFACTURING METHOD THEREOF

The present invention relates to a filter including nylon nanofibers and a biocomponent substrate, and to a manufacturing method thereof. Provided is a filter manufactured by electrospinning a nylon solution on one side of a biocomponent substrate, arranging a nylon nanofiber non-woven fabric, and connecting a polyethylene terephthalate substrate on the other side of the biocomponent substrate. According to the present invention has excellent filtration efficiency and long life. Also, elimination between the nanofiber non-woven fabric and the substrate does not occur without using an adhesive such as a hotmelt or the like.

Publication: [KR 20150040684 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119480
IPC: D04H 1/559 2012.01 (IA)



FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER HAVING MULTIPLE FIBER-DIAMETER GROUP AND MANUFACTURING METHOD THEREOF

The present invention is to provide a filter including polyvinylidene fluoride nanofibers having a multiple fiber-diameter group and a manufacturing method thereof. The filter is manufactured by electrospinning a polyvinylidene fluoride solution on a substrate, and sequentially arranging three polyvinylidene fluoride nanofiber non-woven fabric layers in which the thickness of fiber is different.

Publication: [KR 20150040685 A 20150415](#)

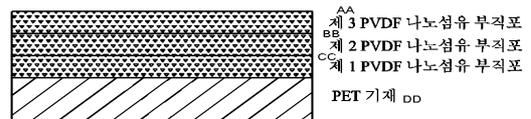
Applicant: FINETEX ENE. INC., KR

Inventor: PARK, JONG CHEOL, KR

Prio:

Appl.No: KR1020130119481

IPC: D04H 1/4382 2012.01 (IA)



FILTER COMPRISING NYLON NANOFIBER AND POLYVINYLIDENE FLUORIDE NANOFIBER AND METHOD FOR MANUFACTURING SAME

The present invention provides a filter comprising nylon nanofiber and polyvinylidene fluoride nanofiber and a method for manufacturing the same. The filter according to the present invention has a structure in which a nylon nanofiber nonwoven fabric and a polyvinylidene fluoride nanofiber nonwoven fabric respectively having diameters different from each other are sequentially stacked.

Publication: [KR 20150040686 A 20150415](#)

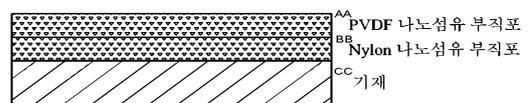
Applicant: FINETEX ENE. INC., KR

Inventor: PARK, JONG CHEOL, KR

Prio:

Appl.No: KR1020130119482

IPC: D04H 1/4374 2012.01 (IA)



FILTER COMPRISING LOW MELTING POINT AND HIGH MELTING POINT POLYVINYLIDENE FLUORIDE NANOFIBER AND METHOD MANUFACTURING SAME

The present invention provides a filter comprising low melting point and high melting point polyvinylidene fluoride nanofiber and a method for manufacturing the same. The filter according to the present invention has a structure in which a low melting point polyvinylidene fluoride nanofiber nonwoven fabric and a high melting point polyvinylidene fluoride nanofiber nonwoven fabric are sequentially stacked on a filter substrate.

Publication: [**KR 20150040687 A 20150415**](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119483
IPC: D04H 1/559 2012.01 (IA)

(19)  KOREAN INTELLECTUAL PROPERTY OFFICE

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B32B 27/12 (2006.01)
D04H 1/4374 (2012.01)
D04H 1/4362 (2012.01)
D04H 1/728 (2012.01)

(21) Application number: 1020130119483 (71) Applicant: FINETEX ENE. INC. (KR)
(22) Application date: 07.10.2013 (72) Inventor: PARK, JONG CHEOL (KR)

(54) FILTER COMPRISING LOW MELTING POINT AND HIGH MELTING POINT POLYVINYLIDENE FLUORIDE NANOFIBER AND METHOD MANUFACTURING SAME

(57) Abstract:
The present invention provides a filter comprising low melting point and high melting point polyvinylidene fluoride nanofiber and a method for manufacturing the same. The filter according to the present invention has a structure in which a low melting point polyvinylidene fluoride nanofiber nonwoven fabric and a high melting point polyvinylidene fluoride nanofiber nonwoven fabric are sequentially stacked on a filter substrate.



AA: High melting point PVDF nanofiber nonwoven fabric

BB: Low melting point PVDF nanofiber nonwoven fabric

CC: Substrate

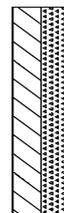
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FILTER COMPRISING POLYURETHANE AND POLYVINYLIDENE FLUORIDE NANOFIBER AND METHOD FOR MANUFACTURING SAME

The present invention relates to a filter comprising polyurethane and polyvinylidene fluoride nanofiber and a method for manufacturing the same. The filter according to the present invention has a structure in which a nanofiber nonwoven fabric is stacked by electrospinning a mixed solution of polyurethane and polyvinylidene fluoride.

Publication: [**KR 20150040688 A 20150415**](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119484
IPC: D04H 1/559 2012.01 (IA)



AA: High melting point PVDF nanofiber nonwoven fabric
 BB: Low melting point PVDF nanofiber nonwoven fabric
 CC: Substrate

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER ON BOTH SIDES OF SUBSTRATE AND MANUFACTURING METHOD THEREOF

The present invention relates to a method for manufacturing a filter including polyvinylidene fluoride nanofibers on both sides of a substrate. The purpose of the present invention is to provide a filter manufactured by arranging each polyvinylidene fluoride nanofiber in layers on both sides of a cellulose substrate; and a manufacturing method thereof. A process for manufacturing the filter of the present invention comprises a process of rotating the upper and lower sides of a fabric 180 degrees to arrange polyvinylidene fluoride nanofibers in layers on both sides of the cellulose substrate, thereby simplifying the manufacturing process and being capable of manufacturing the filter which can be mass-produced by inducing a unit concept to an electrospinning device.

Publication: [KR 20150040689 A 20150415](#)

Applicant: FINETEX ENE. INC., KR

Inventor: PARK, JONG CHEOL, KR

Prio:

Appl.No: KR1020130119485

IPC: D04H 1/559 2012.01 (IA)



FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND BICOMPONENT SUBSTRATE AND MANUFACTURING METHOD THEREOF

The present invention relates to a filter including polyvinylidene fluoride nanofibers and a bicomponent substrate, and to a manufacturing method thereof. The purpose of the present invention is to provide a filter manufactured by arranging each polyvinylidene fluoride nanofiber non-woven fabric in layers on both surfaces of a substrate in which a first bicomponent substrate, a polyethylene terephthalate substrate, and a second bicomponent substrate are arranged in order; and a manufacturing method thereof. A manufacturing process can be simplified by including a process of rotating the upper and lower sides of the fabric for 180° to arrange polyvinylidene fluoride nanofibers in layers on both surfaces of the substrate in which the first bicomponent substrate, the polyethylene terephthalate substrate, and the second bicomponent substrate are arranged in order. Also, the filter can be mass-produced by inducing a unit concept to an electrospinning device.

Publication: [KR 20150040690 A 20150415](#)

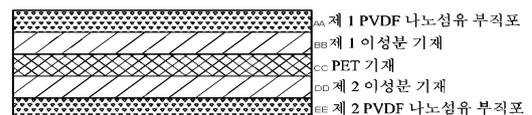
Applicant: FINETEX ENE. INC., KR

Inventor: PARK, JONG CHEOL, KR

Prio:

Appl.No: KR1020130119486

IPC: D04H 1/559 2012.01 (IA)



FILTER COMPRISING POLYVINYLIDENE FLUORIDE-HOT MELT NANOFIBER STACKED ON BOTH SIDES OF BICOMPONENT SUBSTRATE AND METHOD FOR MANUFACTURING SAME

The present invention relates to a filter comprising polyvinylidene fluoride-hot melt nanofiber manufactured by stacking a polyvinylidene fluoride-hot melt nanofiber nonwoven fabric on both sides of a bicomponent substrate, and a method for manufacturing the same. According to the present invention, the nanofiber nonwoven fabric can be prevented from being separated from substrate by using a bicomponent substrate, and the polyvinylidene fluoride-hot melt nanofiber nonwoven fabric can be stacked by electrospinning the nonwoven fabric on both sides of the bicomponent substrate at one time due to a process of rotating the substrate by 180°, thereby simplifying the manufacturing process.

Publication: **KR 20150040691 A 20150415**

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119487
IPC: D04H 1/559 2012.01 (IA)



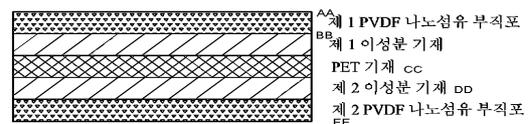
- (AA) Second polyvinylidene fluoride-hot melt nanofiber nonwoven fabric
- (BB) Bicomponent substrate
- (CC) First polyvinylidene fluoride-hot melt nanofiber nonwoven fabric

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND BICOMPONENT SUBSTRATE AND MANUFACTURING METHOD THEREOF

The present invention relates to a filter including polyvinylidene fluoride nanofibers and bicomponent substrates, and to a manufacturing method thereof. The present invention is to provide a filter in which polyvinylidene fluoride nanofiber non-woven fabrics are arranged in layers by electrospinning a solution in which high melting point polyvinylidene fluoride and low melting point polyvinylidene fluoride are mixed on both sides of a substrate in which a first bicomponent substrate, a polyethylene terephthalate substrate, and a second bicomponent substrate are arranged in layers; and a manufacturing method thereof. According to the present invention, the low melting point polyvinylidene fluoride plays a role as an adhesive between a substrate and nanofibers in a thermosetting process of the filter, thereby preventing that the nanofiber non-woven fabric is separated from the substrate.

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Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119488
IPC: D04H 1/559 2012.01 (IA)



FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MANUFACTURING METHOD THEREOF

The present invention relates to a filter including polyvinylidene fluoride nanofibers, and a manufacturing method thereof. The purpose of the present invention is to provide a filter manufactured by electrospinning a solution in which high melting point polyvinylidene fluoride and low melting point polyvinylidene fluoride are mixed on both sides of a substrate, and arranging each polyvinylidene fluoride nanofiber non-woven fabric in layers; and a manufacturing method thereof. According to the present invention, the low melting point polyvinylidene fluoride plays a role as an adhesive through a thermosetting process, thereby preventing desorption between the substrate and the nanofiber non-woven fabric. Also, there is no need to use an extra adhesive such as hotmelt.

Publication: [KR 20150040693 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119489
IPC: D04H 1/559 2012.01 (IA)



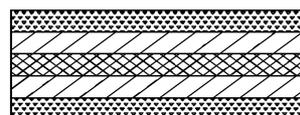
- (AA) Second polyvinylidene fluoride nanofiber non-woven fabric
- (BB) PET base material
- (CC) First polyvinylidene fluoride nanofiber non-woven fabric

FILTER INCLUDING NYLON NANOFIBER AND BICOMPONENT SUBSTRATE AND MANUFACTURING METHOD THEREOF

The present invention relates to a filter including nylon nanofibers and bicomponent substrates, and to a manufacturing method thereof. The present invention is to provide a filter manufactured by arranging each nylon nanofiber non-woven fabric on both sides of a substrate in which a first bicomponent substrate, a polyethylene terephthalate substrate, and a second bicomponent substrate are arranged in layers; and a manufacturing method thereof. A process for manufacturing the filter of the present invention comprises a process of rotating the upper and lower sides of a fabric 180 degrees to arrange nylon nanofibers in layers on both sides of the substrate in which the first bicomponent substrate, the polyethylene terephthalate substrate, and the second bicomponent substrate are arranged in layers, thereby simplifying the manufacturing process and being capable of manufacturing the filter which can be mass-produced by inducing a unit concept to an electrospinning device.

Publication: [KR 20150040694 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119490
IPC: D04H 1/559 2012.01 (IA)



- AA 제 1 Nylon 나노섬유 부직포
- 제 1 이성분 기재 BB
- PET 기재 CC
- 제 2 이성분 기재 DD
- 제 2 Nylon 나노섬유 부직포 EE

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER HAVING MULTI FIBER-DIAMETER GROUP ON BOTH SIDES OF SUBSTRATE AND MANUFACTURING METHOD THEREOF

The present invention is to provide a filter including polyvinylidene fluoride nanofibers having a multi fiber-diameter group on both sides of a substrate, and a manufacturing method thereof. The purpose of the present invention is to provide a filter manufactured by arranging two polyvinylidene fluoride nanofiber non-woven fabrics having different fiber-diameter in layers on both sides of a substrate, and a manufacturing method thereof. The filter of the present invention has two polyvinylidene fluoride nanofiber non-woven fabrics having different fiber-diameter on both sides of the substrate, thereby being capable of manufacturing the filter having high filtration efficiency, low pressure drop, and long life. Also, two nanofiber non-woven fabrics having different fiber-diameter can be manufactured by consecutive electrospinning, and efficiency of a process and mass-production of the filter are feasible.

Publication: [KR 20150040695 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119491
IPC: D04H 1/559 2012.01 (IA)

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 B22F 27/12 (2006.01)
 D04H 1/4234 (2012.01)
 D04H 1/4232 (2012.01)
 D04H 1/728 (2012.01)

(21) Application number: 1020130119491 (71) Applicant: FINETEX ENE. INC. (KR)
 (22) Application date: 07.10.2013 (72) Inventor: PARK, JONG CHEOL (KR)

(54) FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER HAVING MULTI FIBER-DIAMETER GROUP ON BOTH SIDES OF SUBSTRATE AND MANUFACTURING METHOD THEREOF

(57) Abstract:
 The present invention is to provide a filter including polyvinylidene fluoride nanofibers having a multi fiber-diameter group on both sides of a substrate, and a manufacturing method thereof. The purpose of the present invention is to provide a filter manufactured by arranging two polyvinylidene fluoride nanofiber non-woven fabrics having different fiber-diameter in layers on both sides of a substrate, and a manufacturing method thereof. The filter of the present invention has two polyvinylidene fluoride nanofiber non-woven fabrics having different fiber-diameter on both sides of the substrate, thereby being capable of manufacturing the filter having high filtration efficiency, low pressure drop, and long life. Also, two nanofiber non-woven fabrics having different fiber-diameter can be manufactured by consecutive electrospinning, and efficiency of a process and mass-production of the filter are feasible.

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- (AA) Second PVDF nanofiber non-woven fabric
- (BB) First PVDF nanofiber non-woven fabric
- (CC) Basic material
- (DD) Third PVDF nanofiber non-woven fabric
- (EE) Fourth PVDF nanofiber non-woven fabric

FILTER COMPRISING NYLON NANOFIBER AND POLYVINYLIDENE FLUORIDE NANOFIBER AND METHOD FOR MANUFACTURING SAME

The present invention relates to a filter comprising nylon nanofiber and polyvinylidene fluoride nanofiber manufactured by stacking a nylon nanofiber nonwoven fabric and a polyvinylidene fluoride nanofiber nonwoven fabric on both sides of a substrate respectively, and a method for manufacturing the same. According to the present invention, the manufacturing process can be simplified since the method comprises a process of rotating a substrate by 180° while stacking a nylon nanofiber nonwoven fabric and a polyvinylidene fluoride nanofiber nonwoven fabric on both sides of the substrate, and mass production of the filter may be possible by applying an electrospinning apparatus consisting of a plurality of electrospinning units.

Publication: [KR 20150040696 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119492
IPC: D04H 1/559 2012.01 (IA)

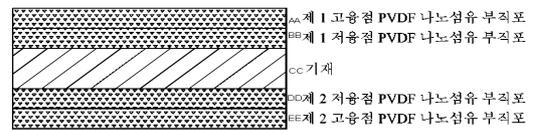
AA 제 1 PVDF 나노섬유 부직포
 BB 제 1 Nylon 나노섬유 부직포
 CC 기재
 DD 제 2 Nylon 나노섬유 부직포
 EE 제 2 PVDF 나노섬유 부직포

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER ON BOTH SIDES OF SUBSTRATE AND MANUFACTURING METHOD THEREOF

The present invention relates to a method for manufacturing a filter including polyvinylidene fluoride nanofibers on both sides of a substrate. The purpose of the present invention is to provide a filter manufactured by electrospinning a high melting point polyvinylidene fluoride solution and a low melting point polyvinylidene fluoride solution on both sides of a substrate, and arranging each low melting point polyvinylidene fluoride non-woven fabric and high melting point polyvinylidene fluoride non-woven fabric in layers; and a manufacturing method thereof. According to the present invention, the low melting point polyvinylidene fluoride plays a role as an adhesive through a thermosetting process, thereby preventing desorption between the substrate and the nanofiber non-woven fabric. Also, there is no need to use an extra adhesive such as hotmelt.

Publication: [KR 20150040697 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119493
IPC: D04H 1/559 2012.01 (IA)



FILTER COMPRISING POLYURETHANE AND POLYVINYLIDENE FLUORIDE NANOFIBER STACKED ON BOTH SIDES OF SUBSTRATE AND METHOD FOR MANUFACTURING SAME

The present invention relates to a filter comprising polyurethane and polyvinylidene fluoride nanofiber stacked on both sides of a substrate, manufactured by electrospinning a mixed solution of polyurethane and polyvinylidene fluoride on both sides of a substrate respectively and by stacking the mixed nanofiber nonwoven fabrics of polyurethane and polyvinylidene fluoride on the both sides respectively; and a method for manufacturing the same.

Publication: [KR 20150040698 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119494
IPC: D04H 1/559 2012.01 (IA)



- (AA) First mixed nanofiber nonwoven fabric of polyurethane and polyvinylidene fluoride
- (BB) Substrate
- (CC) Second mixed nanofiber nonwoven fabric of polyurethane and polyvinylidene fluoride

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MANUFACTURING METHOD THEREOF

The present invention is to provide a filter including polyvinylidene fluoride nanofibers. The filter forms a polyvinylidene fluoride nanofiber non-woven fabric layer on cellulose substrates, and arranges the cellulose substrates in layers on one surface of the polyvinylidene fluoride nanofiber non-woven fabric layer.

Publication: [KR 20150040699 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119495
IPC: D04H 1/559 2012.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150040699 A
 (43) Publication date: 15.04.2015

(51) Int. Cl. **D04H 1/559** (2012.01)
B01D 30/08 (2006.01)
B32B 27/12 (2006.01)
D04H 1/4274 (2012.01)
D04H 1/4262 (2012.01)
D04H 1/728 (2012.01)

(21) Application number: 1020130119495 (71) Applicant: FINETEX ENE, INC. (KR)
 (22) Application date: 07.10.2013 (72) Inventor: PARK, JONG CHEOL (KR)

(54) FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MANUFACTURING METHOD THEREOF

(57) Abstract:
 The present invention is to provide a filter including polyvinylidene fluoride nanofibers. The filter forms a polyvinylidene fluoride nanofiber non-woven fabric layer on cellulose substrates, and arranges the cellulose substrates in layers on one surface of the polyvinylidene fluoride nanofiber non-woven fabric layer.



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- (AA) Second cellulose base material
- (BB) Polyvinylidene fluoride nanofiber non-woven fabric
- (CC) First cellulose base material

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MANUFACTURING METHOD THEREOF

The present invention is to provide a filter including polyvinylidene fluoride nanofibers. The filter including nanofibers is manufactured by electrospinning a polyvinylidene fluoride solution on a first bicomponent substrate which is arranged on a first polyethylene terephthalate substrate, and connecting one surface of a second bicomponent substrate which is arranged on a second polyethylene terephthalate substrate and one surface of a polyvinylidene fluoride nanofiber non-woven fabric to face each other.

Publication: [KR 20150040700 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119496
IPC: D04H 1/559 2012.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150040700 A
 (43) Publication date: 15.04.2015

(51) Int. Cl. **D04H 1/559** (2012.01)
B01D 30/08 (2006.01)
B32B 27/12 (2006.01)
D04H 1/4274 (2012.01)
D04H 1/4262 (2012.01)
D04H 1/728 (2012.01)

(21) Application number: 1020130119496 (71) Applicant: FINETEX ENE, INC. (KR)
 (22) Application date: 07.10.2013 (72) Inventor: PARK, JONG CHEOL (KR)

(54) FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MANUFACTURING METHOD THEREOF

(57) Abstract:
 The present invention is to provide a filter including polyvinylidene fluoride nanofibers. The filter including nanofibers is manufactured by electrospinning a polyvinylidene fluoride solution on a first bicomponent substrate which is arranged on a first polyethylene terephthalate substrate, and connecting one surface of a second bicomponent substrate which is arranged on a second polyethylene terephthalate substrate and one surface of a polyvinylidene fluoride nanofiber non-woven fabric to face each other.



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- (AA) Second PET base material
- (BB) Second bicomponent base material
- (CC) Polyvinylidene fluoride nanofiber non-woven fabric
- (DE) First bicomponent base material
- (EE) First PET base material

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MANUFACTURING METHOD THEREOF

The present invention is to provide a filter including polyvinylidene fluoride nanofibers. After electrospinning a polyvinylidene fluoride solution on a first bicomponent substrate, a second bicomponent substrate is connected on a polyvinylidene fluoride nanofiber non-woven fabric.

Publication: [KR 20150040701 A 20150415](#)

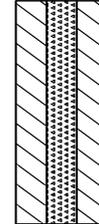
Applicant: FINETEX ENE. INC., KR

Inventor: PARK, JONG CHEOL, KR

Prio:

Appl.No: KR1020130119497

IPC: D04H 1/559 2012.01 (IA)



제 2 이성분 기재 AA
폴리비닐리덴 플루오라이드 나노섬유 부직포
제 1 이성분 기재 CC

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MANUFACTURING METHOD THEREOF

The present invention is to provide a filter including polyvinylidene fluoride nanofibers. The filter is manufactured by forming a low and high melting point polyvinylidene fluoride nanofiber non-woven fabric layer on a first bicomponent substrate which is arranged on a first polyethylene terephthalate substrate, and joining one side of a second bicomponent substrate which is arranged on a second polyethylene terephthalate substrate to face one side of the polyvinylidene fluoride nanofiber non-woven fabric layer.

Publication: [KR 20150040702 A 20150415](#)

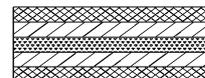
Applicant: FINETEX ENE. INC., KR

Inventor: PARK, JONG CHEOL, KR

Prio:

Appl.No: KR1020130119498

IPC: D04H 1/559 2012.01 (IA)



제 2 PET 기재 AA
제 2 이성분 기재 BB
고융점 및 저융점 폴리비닐리덴 플루오라이드 나노섬유 부직포
제 1 이성분 기재 DD
제 1 PET 기재 EE

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MANUFACTURING METHOD THEREOF

The present invention is to provide a filter including polyvinylidene fluoride nanofibers. The filter is manufactured by forming a polyvinylidene fluoride nanofiber non-woven fabric layer on a first polyethylene terephthalate substrate, and arranging a second polyethylene terephthalate substrate on one side of the polyvinylidene fluoride nanofiber non-woven fabric layer.

Publication: [KR 20150040703 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119499
IPC: D04H 1/559 2012.01 (IA)

(19)  KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150040703 A
 (43) Publication date: 15.04.2015

(51) Int. Cl. **D04H 1/559** (2012.01)
B01D 28/08 (2006.01)
B32B 27/12 (2006.01)
D04H 1/474 (2012.01)
D04H 1/422 (2012.01)
D04H 1/728 (2012.01)

(21) Application number: 1020130119499 (71) Applicant: FINETEX ENE. INC. (KR)
 (22) Application date: 07.10.2013 (72) Inventor: PARK, JONG CHEOL (KR)

(54) FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MANUFACTURING METHOD THEREOF

(57) Abstract:
 The present invention is to provide a filter including polyvinylidene fluoride nanofibers. The filter is manufactured by forming a polyvinylidene fluoride nanofiber non-woven fabric layer on a first polyethylene terephthalate substrate, and arranging a second polyethylene terephthalate substrate on one side of the polyvinylidene fluoride nanofiber non-woven fabric layer.



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- (AA) Second PET base material
- (BB) High melting point and low melting point polyvinylidene fluoride nanofiber non-woven fabric
- (CC) First PET base material

FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MANUFACTURING METHOD THEREOF

The present invention is to provide a filter including polyvinylidene fluoride nanofibers. A polyvinylidene fluoride nanofiber non-woven fabric layer is formed on a second biocomponent substrate which is arranged on a first biocomponent substrate. And then, one surface of a third biocomponent substrate which is arranged on a fourth biocomponent substrate faces one surface of the polyvinylidene fluoride nanofiber non-woven fabric layer.

Publication: [KR 20150040704 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119500
IPC: D04H 1/559 2012.01 (IA)

(19)  KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150040704 A
 (43) Publication date: 15.04.2015

(51) Int. Cl. **D04H 1/559** (2012.01)
B01D 28/08 (2006.01)
B32B 27/12 (2006.01)
D04H 1/474 (2012.01)
D04H 1/422 (2012.01)
D04H 1/728 (2012.01)

(21) Application number: 1020130119500 (71) Applicant: FINETEX ENE. INC. (KR)
 (22) Application date: 07.10.2013 (72) Inventor: PARK, JONG CHEOL (KR)

(54) FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MANUFACTURING METHOD THEREOF

(57) Abstract:
 The present invention is to provide a filter including polyvinylidene fluoride nanofibers. A polyvinylidene fluoride nanofiber non-woven fabric layer is formed on a second biocomponent substrate which is arranged on a first biocomponent substrate. And then, one surface of a third biocomponent substrate which is arranged on a fourth biocomponent substrate faces one surface of the polyvinylidene fluoride nanofiber non-woven fabric layer.



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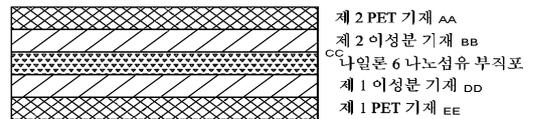
- (AA) Fourth biocomponent base material
- (BB) Third biocomponent base material
- (CC) Polyvinylidene fluoride nanofiber non-woven fabric
- (DE) Second biocomponent base material
- (EE) First biocomponent base material

FILTER COMPRISING NYLON NANOFIBER AND METHOD FOR MANUFACTURING SAME

The present invention provides a filter comprising nylon nanofiber which is characterized by that: a first bicomponent substrate is stacked on a first polyethylene terephthalate substrate, and a nylon nanofiber nonwoven fabric layer is formed on the first bicomponent substrate; and one surface of a second bicomponent substrate stacked on the second polyethylene terephthalate substrate is bonded on one surface of polyvinylidene fluoride nonwoven fabric layer.

Publication: [KR 20150040705 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119501
IPC: D04H 1/559 2012.01 (IA)

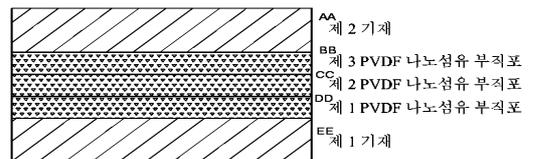


FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MANUFACTURING METHOD THEREOF

The present invention is to provide a filter including polyvinylidene fluoride nanofibers. A polyvinylidene fluoride nanofiber non-woven fabric layer having fiber diameter gradient is formed on a first substrate. And then, a second substrate is arranged on one surface of the polyvinylidene fluoride nanofiber non-woven fabric layer.

Publication: [KR 20150040706 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119502
IPC: D04H 1/559 2012.01 (IA)

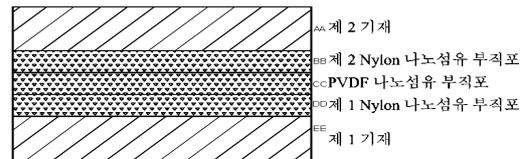


FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MANUFACTURING METHOD THEREOF

The present invention is to provide a filter including nylon nanofibers and polyvinylidene fluoride nanofibers. The filter including nanofibers is manufactured by sequentially electrospinning a first nylon solution, a polyvinylidene fluoride solution, and a second nylon solution on a first substrate, and connecting a second substrate on a second nylon nanofiber non-woven fabric formed by electrospinning the second nylon solution.

Publication: [KR 20150040707 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119503
IPC: D04H 1/559 2012.01 (IA)



FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MANUFACTURING METHOD THEREOF

The present invention is to provide a filter including polyvinylidene fluoride nanofibers. The filter including nanofibers is manufactured by electrospinning a first low melting point polyvinylidene fluoride solution, a high melting point polyvinylidene fluoride solution, and a second low melting point polyvinylidene fluoride solution on a first substrate, and connecting a second substrate on a second low melting point polyvinylidene fluoride nanofiber non-woven fabric formed by electrospinning the second low melting point polyvinylidene fluoride solution.

Publication: [KR 20150040708 A 20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119504
IPC: D04H 1/559 2012.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150040708 A
(43) Publication date: 15.04.2015

(51) Int. Cl. D04H 1/559 (2012.01)
D04H 29/00 (2006.01)
D04H 21/27 (2006.01)
D04H 1/474 (2012.01)
D04H 1/432 (2012.01)
D04H 1/728 (2012.01)

(21) Application number: 1020130119504 (71) Applicant: FINETEX ENE. INC. (KR)
(22) Application date: 07.10.2013 (72) Inventor: PARK, JONG CHEOL (KR)

(54) FILTER INCLUDING POLYVINYLIDENE FLUORIDE NANOFIBER AND MANUFACTURING METHOD THEREOF

(57) Abstract:
The present invention is to provide a filter including polyvinylidene fluoride nanofibers. The filter including nanofibers is manufactured by electrospinning a first low melting point polyvinylidene fluoride solution, a high melting point polyvinylidene fluoride solution, on a first substrate, and connecting a second substrate on a second low melting point polyvinylidene fluoride nanofiber non-woven fabric formed by electrospinning the second low melting point polyvinylidene fluoride solution.

CCP/RYR/GHT/KIPRO 2015

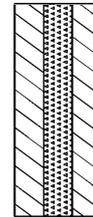
- (DD) First low melting point PVDF nanofiber non-woven fabric
- (EE) First base material
- (CC) High melting point PVDF nanofiber non-woven fabric
- (BB) Second low melting point PVDF nanofiber non-woven fabric
- (AA) Second base material

FILTER COMPRISING POLYURETHANE-POLYVINYLIDENE FLUORIDE NANOFIBER AND METHOD FOR MANUFACTURING SAME

The present invention provides a filter comprising polyurethane-polyvinylidene fluoride nanofiber. The filter according to the present invention is manufactured by electrospinning, on a first substrate, a mixed solution of polyurethane and polyvinylidene fluoride to form a polyurethane-polyvinylidene fluoride nanofiber nonwoven fabric, and bonding a second substrate on the nonwoven fabric.

Publication: [KR 20150040709 A](#) [20150415](#)

Applicant: FINETEX ENE. INC., KR
Inventor: PARK, JONG CHEOL, KR
Prio:
Appl.No: KR1020130119505
IPC: D04H 1/559 2012.01 (IA)



필터
 구조
 단면도
 (1) 기판
 (2) 나노섬유층

METHOD FOR PRODUCING NEEDLE-PUNCHED NON-WOVEN FABRIC FROM RECYCLED ARAMID

The present invention relates to a method for producing a needle-punched non-woven fabric by recycling waste cut pieces of aramid fabrics. According to the present invention, a needle-punched non-woven fabric is produced by recycling waste cut pieces of aramid fabrics from a weaving process using an aramid fabric mainly used as high strength, high heat resistant industrial material. Furthermore, according to the present invention, the waste cut pieces of aramid fabrics are introduced into a scutcher without slip and entanglement, and high strength waste aramid is uniformly dispersed in the non-woven fabric, and it is possible to produce a non-woven fabric with a simple process and at lower costs than the existing products.

Publication: [KR 20150041313 A](#) [20150416](#)

Applicant: KOREA TEXTILE DEVELOPMENT INSTITUTE, KR;
 KWON, SEONG YOUL, KR
Inventor: KANG, YOON HWA, KR; PARK, SEONG WOO,
 KR; KWON, SEONG YOUL, KR
Prio:
Appl.No: KR1020130119685
IPC: D04H 1/4274 2012.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150041313 A
 (43) Publication date: 16.04.2015

(51) Int. Cl. D04H 1/4274 (2012.01)
 D04H 1/44 (2006.01)
 D04H 1/4234 (2012.01)
 D04H 1/46 (2006.01)

(21) Application number: 1020130119685 (72) Inventor: KANG, YOON HWA (KR),
 PARK, SEONG WOO (KR),
 KWON, SEONG YOUL (KR)

(22) Application date: 08.10.2013

(71) Applicant: KOREA TEXTILE DEVELOPMENT IN-
 STITUTE (KR)
 KWON, SEONG YOUL (KR)

(54) METHOD FOR PRODUCING NEEDLE-PUNCHED
 NON-WOVEN FABRIC FROM RECYCLED ARAMID

(57) Abstract:
 The present invention relates to a method for producing a needle-punched non-woven fabric by recycling waste cut pieces of aramid fabrics. According to the present invention, a needle-punched non-woven fabric is produced by recycling waste cut pieces of aramid fabrics from a weaving process using an aramid fabric mainly used as high strength, high heat resistant industrial material. Furthermore, according to the present invention, the waste cut pieces of aramid fabrics are introduced into a scutcher without slip and entanglement, and high strength waste aramid is uniformly dispersed in the non-woven fabric, and it is possible to produce a non-woven fabric with a simple process and at lower costs than the existing products.

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OPEN TYPE CAM BLOCK FOR SOCKS KNITTING MACHINE

The present invention relates to an open type cam block for a machine for knitting socks, which is used in a machine for knitting socks; has a cam which moves back and forth; easily guides the cam to move back and forth; has a fastening piece which is integrated into a block body to prevent the movable cam from being separated outside without an extra cover; and is used in various movable cams which move back and forth and are used in the machine, thereby reducing cost, compared with an existing cost, and being manufactured in a simple manner where the cam is completely is fixed on the block body and is accordingly transferred.

Publication: [KR 20150041498 A 20150416](#)

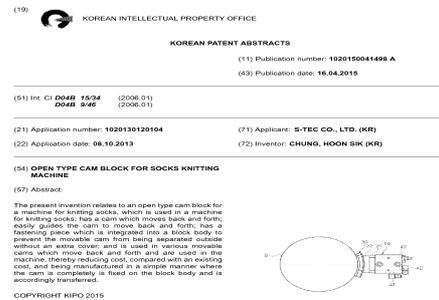
Applicant: S-TEC CO., LTD., KR

Inventor: CHUNG, HOON SIK, KR

Prio:

Appl.No: KR1020130120104

IPC: D04B 15/34 2006.01 (IA)



APPARATUS FOR DRIVING STITCH CAM IN SOCK KNITTING MACHINE

The present invention relates to an apparatus for driving a stitch cam in a sock knitting machine, which is characterized by the following: the stitch cam moves in the upward and downward directions to adjust the width of a sock to be knitted; the stitch cam is operated by hydraulic pressure, and is adjustable by a user at any time; and the stitch cam moves also in the forward and backward directions according to the purpose of use. According to the present invention, a stitch cam capable of moving horizontally and vertically is achieved.

Publication: [KR 20150041499 A 20150416](#)

Applicant: S-TEC CO., LTD., KR

Inventor: CHUNG, HOON SIK, KR

Prio:

Appl.No: KR1020130120109

IPC: D04B 15/34 2006.01 (IA)



APPARATUS FOR PRODUCING NANOTEXTURED FILM

The present invention provides an apparatus for manufacturing a nanotextured film comprising the following: an electrospinning module provided with an electrospinning nozzle through which a polymer spinning solution fiberized through a high voltage is discharged to a film base; and an electroplating module for electroplating, with preset metal, the film base in which fiber discharged from the electrospinning nozzle is collected.

Publication: [KR 20150044793 A 20150427](#)



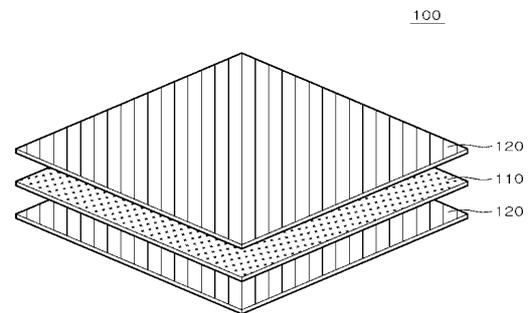
Applicant: KOREA UNIVERSITY RESEARCH AND BUSINESS FOUNDATION, KR
Inventor: YOON SUK GOO, US; AN, SEONG PIL, KR; ALEXANDER L. YARIN, US
Prio: KR 20140321 1020140033128
Appl.No: KR1020140061064
IPC: D04H 1/728 2012.01 (IA)

NON-WOVEN FABRIC AND METHOD FOR MANUFACTURING SAME

The present invention relates to non-woven fabric, which is manufactured by laminating a plurality of web layers made of natural fiber, and to a method for manufacturing the same. The non-woven fabric of the present invention may include: a first web formed by using cotton fiber or pulp fiber; and a second web formed by using functional fiber and laminated on an upper side and a lower side of the first web.

Publication: **KR 20150045793 A 20150429**

Applicant: DAESUNG MEDICAL CO., KR
Inventor: YANG, KYUNG JIN, KR
Prio:
Appl.No: KR1020130125495
IPC: D04H 1/4374 2012.01 (IA)

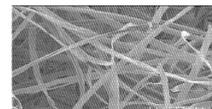


FILLER

The present invention is to provide a filler which maintains heat insulation and form stability and has elastic recovery. To this end, provided is a filler including a kapok fabric, an elastomer fabric, and a highly elastic composite fabric.

Publication: **KR 101506007 B1 20150407**

Applicant: GIL, SHIN YOUNG, KR
Inventor: GIL, SHIN YOUNG, KR
Prio:
Appl.No: KR1020140061221
IPC: D04H 1/02 2006.01 (IA)

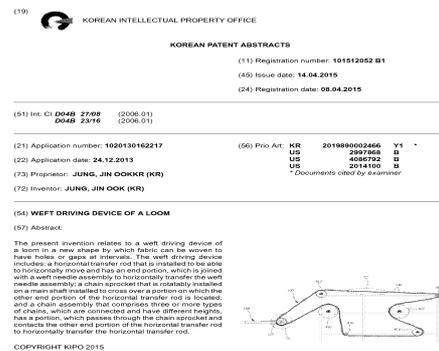


WEFT DRIVING DEVICE OF A LOOM

The present invention relates to a weft driving device of a loom in a new shape by which fabric can be woven to have holes or gaps at intervals. The weft driving device includes: a horizontal transfer rod that is installed to be able to horizontally move and has an end portion, which is joined with a weft needle assembly to horizontally transfer the weft needle assembly; a chain sprocket that is rotatably installed on a main shaft installed to cross over a portion on which the other end portion of the horizontal transfer rod is located; and a chain assembly that comprises three or more types of chains, which are connected and have different heights, has a portion, which passes through the chain sprocket and contacts the other end portion of the horizontal transfer rod to horizontally transfer the horizontal transfer rod.

Publication: **KR 101512052 B1 20150414**

Applicant: JUNG, JIN OOK, KR
Inventor: JUNG, JIN OOK, KR
Prio:
Appl.No: KR1020130162217
IPC: D04B 27/08 2006.01 (IA)



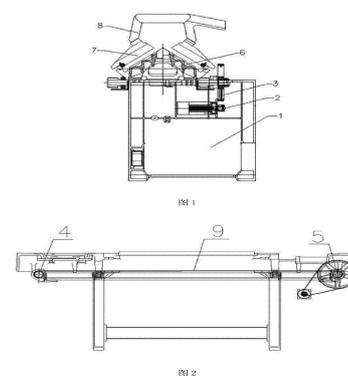
Triangular transmission mechanism for braiding machine

The invention relates to a triangular transmission mechanism for a braiding machine. A first transmission shaft (4) and a second transmission shaft (5) are arranged on a machine body (1), and tooth-shaped ends are arranged at two ends of each of the first transmission shaft (4) and the second transmission shaft (5) respectively; a triangular supporting beam (6) is fixed on the machine body (1); a motor (2) is fixed on the machine body (1); the first transmission shaft (4) is in transmission connection with the motor (2) through a transmission wheel pair (3); a saddle-shaped slide frame (8) is arranged on the triangular supporting beam (6); slide braiding plates (7) are fixed on saddle plates at the two sides of the saddle-shaped slide frame (8); the first transmission shaft (4) and the second transmission shaft (5) are connected with a tooth-shaped transmission belt (9) through the tooth-shaped ends; a connecting strip (10) is arranged on the saddle-shaped slide frame (8), and the saddle-shaped slide frame (8) is connected with the tooth-shaped transmission belt (9) through the connecting strip (10). The triangular transmission mechanism adopts double-side transmission, is stable in transmission, stable in force moment of transmission shafts, and uniform in braided loom lines.

Publication: **CN 104593937 A 20150506**

Applicant: JINGWEI TEXTILE MACH CO LTD
Inventor: CUI XIAOGUANG; DU MEIXIANG; LEI XINGRU;
LI HONGJIE; LI JINYU; MA JUN; XIA LEI; ZHANG XINMIN
Prio:
Appl.No: CN201510005043
IPC: D04B 15/32

CN 104593937 A 说明书附图 1/2页



Density tightness regulating device for coil braiding

The invention relates to a density tightness regulating device for coil braiding. The density tightness regulating device comprises a controller, a control motor, a lead screw, a nut, a connecting table, a supporting rod and a density triangle, wherein the controller is connected with the control motor; an output shaft of the control motor is connected with the lead screw; a nut is arranged on the lead screw to form a nut pair; the connecting table is arranged below the nut; the connecting table is connected with the density triangle through a supporting rod. After the controller of the density tightness regulating device sends different control signals, the control motor controls a pulse signal to rotate by a certain step angle, and drives the lead screw pair connected with the control motor to drive the density triangle to uniformly slide along a machine head bottom plate slide slot, so that a knitting needle is pushed to realize different yarn pressing depths to further complete density regulation.

Publication: [CN 104593938 A 20150506](#)

Applicant: JINGWEI TEXTILE MACH CO LTD
Inventor: CUI XIAOGUANG; JIA LEI; LEI XINGRU; LI HONGJIE; LI JINYU; MA JUN; ZHANG XINMIN

Prio:
Appl.No: CN201510013328
IPC: D04B 15/36

CN 104593938 A 说明书附图 1/1页

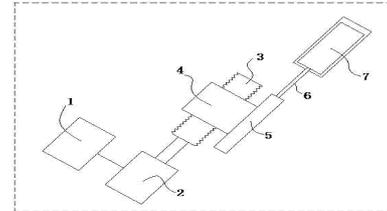


图 1

5

Automatic regulating device for synchronous belt of computer-controlled high-speed silk stocking machine

The invention discloses an automatic regulating device for a synchronous belt of a computer-controlled high-speed silk stocking machine. A drive synchronous belt wheel is pivoted on a base; a primary transmission spline shaft penetrates through the drive synchronous belt wheel, and is matched with a cover plate; the cover plate is fixed on the drive synchronous belt; an eccentric regulating bolt is mounted on the cover plate, and propped against the drive synchronous belt wheel; a driven synchronous belt is pivoted on the base, and is connected with the drive synchronous belt wheel through a synchronous belt; a tightening wheel is popped against the synchronous belt, and mounted on a tightening wheel shaft; an open slot is formed in the base, and an upper bolster and a lower bolster are fixedly arranged at the two sides of the open slot, respectively; a gas cylinder is mounted on the base; one end of a piston is connected with the tightening wheel shaft, and the other end of the piston is positioned in the gas cylinder; a regulating base is mounted at one end of the gas cylinder, and a top block is mounted in the regulating base; an end cover is arranged at the outer end of the regulating base, a regulating bolt is arranged on the end cover, and the regulating bolt is popped against the top block. The automatic regulating device has the advantages of being simple in structure, convenient to use, capable of reducing the processing precision, and the like.

Publication: [CN 104593939 A 20150506](#)

Applicant: SHAOXING HAN XIANG PREC MACHINERY MFG CO LTD
Inventor: LI MING
Prio:
Appl.No: CN201510038638

CN 104593939 A 说明书附图 1/1页

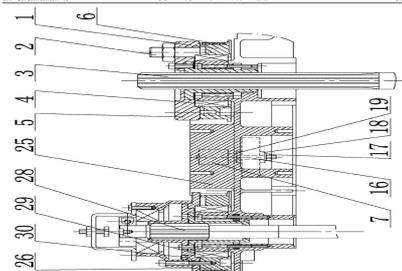


图 1

7

IPC: D04B 15/94

Machine head transmission gear for high-speed silk stockings machine

The invention discloses a machine head transmission gear for a high-speed silk stockings machine. A vertical seat and a lower fixed seat are respectively fixed on the upper end and the lower end of a main seat; a vertical shaft assembly is arranged on the main seat and the vertical seat; a spline transmission main shaft is arranged in the vertical shaft assembly; an upper fixed seat is fixedly arranged on the vertical shaft assembly; a synchronous pulley A is pivoted on the lower fixed base; a tensioning sleeve assembly A is fixedly arranged between the synchronous pulley A and the spline transmission main shaft; a synchronous pulley B is fixedly arranged on the lower end of the main seat, and is fixedly provided with an arc gear; a tensioning sleeve assembly B is fixedly arranged between the synchronous pulley B and the spline transmission main shaft; a synchronous pulley C is pivoted on the upper fixed seat; a transmission plate A is fixed with the synchronous pulley C; a spline housing A movably sleeves the spline transmission main shaft; a universal coupling is connected with the spline housing A; a machine head assembly is assembled on the upper fixed seat. According to the machine head transmission gear, the machining precision of a plurality of spare parts is reduced; the production cost is reduced; great convenience is brought for production and utilization of users.

Publication: [CN 104593940 A 20150506](#)

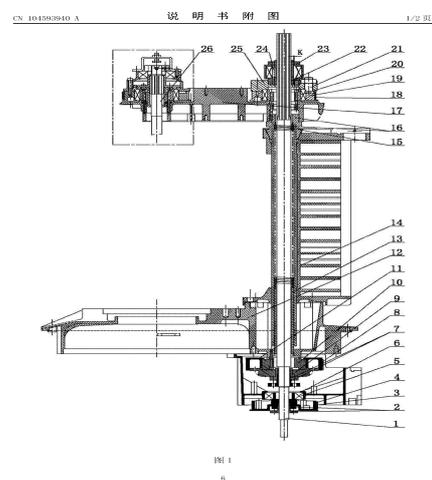
Applicant: SHAOXING HAN XIANG PREC MACHINERY
MFG CO LTD

Inventor: LI MING

Prio:

Appl.No: CN201510038783

IPC: D04B 15/94



Dust collection mechanism in automatic hosiery knitter

The invention provides a dust collection mechanism in an automatic hosiery knitter, belongs to the technical field of machinery, and aims at solving the problem of the lower stability of an existing dust removing device. The dust collection mechanism in the automatic hosiery knitter comprises a dust removing barrel connected with a rack of a knitting machine; the dust removing barrel comprises an upper barrel body and a lower barrel body, which are internally provided with hollow cavities; an inlet is formed in the upper end of the upper barrel body and an outlet is formed in the lower end of the lower barrel body; the lower end of the upper barrel body sleeves the outer side of the upper end of the lower barrel body, and the upper barrel body is in threaded connection with the lower barrel body; the upper end of the lower barrel body is fixedly connected with a separation plate; a plurality of through dust removing holes are formed in the separation plate; each dust removing hole is connected with a filtering cloth bag; the separation plate is further connected with a fan; the upper barrel body and the lower barrel body are made of transparent materials; the fan is located on the lower part of the filtering cloth bag along the axis direction of the dust removing barrel. The dust removing device has high stability.

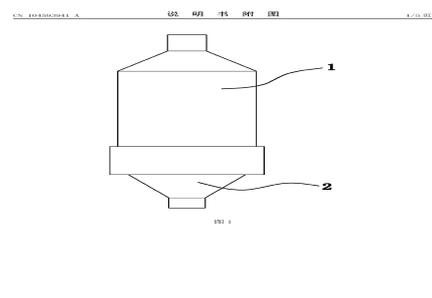
Publication: [CN 104593941 A 20150506](#)

Applicant: HAINING HAD SOCKS CO LTD

Inventor: WANG XUEXIA

Prio:

Appl.No: CN201510055578



IPC: D04B 35/32

Steel wire nylon composite rope

The invention discloses a steel wire nylon composite rope, and aims to solve the problems that when a common steel wire rope works on a pulley with small diameter, the bending degree and deformation degree of each strand of steel wire are greatly different when the steel wire rope moves on the pulley due to great curvature of the pulley, and mutual friction between one strand of steel wire and the other strand of steel wire is generated so that the steel wire rope is easily in failure under the functions of the stress, the strain and the mutual friction to cause short service life. According to the steel wire nylon composite rope, because a nylon material has a good friction reduction effect, the rope cannot be in failure too early because of severe friction between the fibers of the ropes when the rope works on the pulley with the small diameter. The steel wire nylon composite rope is characterized by being formed by uniformly mixing the steel wire fibers and the nylon fibers and weaving; moreover, the problem that the rope is in failure too early because of severe friction between the fibers of the ropes when the common steel wire rope works on the pulley with the small diameter can be solved.

Publication: [CN 104593942 A 20150506](#)

Applicant: JIANGSU BO LAN CABLE INDUSTRY SCIENCE AND TECHNOLOGY CO LTD

Inventor: BI DONGJUN; QING SONGXIANG; WANG QIANG; XU SHIDONG

Prio:

Appl.No: CN201510063155

IPC: D04C 1/12

CN 104593942 A 说明书附图 1/1页

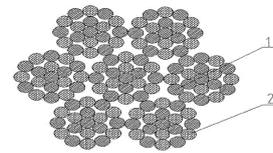


图 1

Angle-adjustable novel angle guiding wheel type composite material three-dimensional knitting forming machine

The invention discloses an angle-adjustable novel angle guiding wheel type composite material three-dimensional knitting forming machine which comprises a rectangular frame, wherein connecting blocks are mounted on four legs of the frame; a lead screw is mounted between every two connecting blocks in the length direction; motors are mounted on the rectangular frame; motor shafts on the motors are connected with bevel gears; sliding blocks are movably mounted on the lead screws; connecting plates are mounted on the sliding blocks; the connecting plates are connected with a baseplate; a knitting mechanism is mounted on the baseplate; and one end of the baseplate is movably connected with the rectangular frame. According to the machine, a knitting angle can be adjusted as a manipulator and a mandrel change. The knitting efficiency is improved, and the cost is saved to a certain extent.

Publication: [CN 104593943 A 20150506](#)

Applicant: UNIV ZHEJIANG SCIENCE & TECH

Inventor: LIU YISHENG; WU ZHENYU; XIANG ZHONG; XU HAILIANG

Prio:

Appl.No: CN201410844398

IPC: D04C 3/40

CN 104593943 A 说明书附图 1/2页

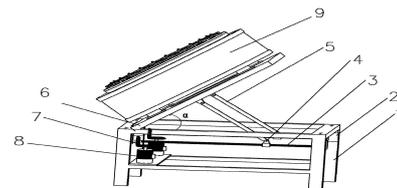


图 1

Manufacturing method for skin-fitting hygienic and protecting non-woven fabric

The invention provides a manufacturing method for a skin-fitting hygienic and protecting non-woven fabric and relates to the field of environment-friendly skin care products. The manufacturing method comprises the following steps: adopting silk fiber; degumming neutral protease; flushing; dewatering; drying; removing impurities; preparing silk cotton strip; cutting the silk cotton strip; loosening the fiber; carding; forming fiber web; forming a plurality of spunlaces on front and back sides; dewatering; pre-drying; post-finishing; drying and shaping; slitting; winding; packaging. According to the invention, a high-temperature high-pressure cooking pot technique and equipment are used for cooking cocoon; the pressure is set at 0.1-0.2 MPa; 250kg water fills a device; the temperature of saturated steam under the pressure is at 120-132 DEG C; the maximum temperature critical point of the heat resistance of the silk fiber is at 140 DEG C; after the pretreatment through high-temperature high-pressure clean water, the swelling effect of silk gum is excellent and the silk fiber is not damaged at all.

Publication: [CN 104593944 A 20150506](#)

Applicant: DANDONG ZHONGTIAN TUSSAH
BIOTECHNOLOGY CO LTD

Inventor: JIANG LIXIAN; MU CHENGCHENG; MU
DEMING; ZHANG SHAOHUA

Prio:

Appl.No: CN201510023844

IPC: D04H 1/4266

Technology for producing high water absorption silky non-woven fabric

The invention discloses a technology for producing high water absorption silky non-woven fabric. According to the technology, a hydrophilic agent solution is used for spraying and soaking or padding silk fibers or silk water non-woven fabric under the conditions of different concentrations, temperatures and time periods, the water absorption performance of the silk fibers is greatly improved, and hence the non-woven fabric can be widely popularized when being applied to the beauty field or the medical auxiliary material field. Meanwhile, the non-woven fabric can be used for producing facial masks, adhesive bandages, medical auxiliary materials and the like, and the non-woven fabric is made to have the advantages of health care, moisturizing and good soft comfort.

Publication: [CN 104593945 A 20150506](#)

Applicant: TANG YI

Inventor: TANG YI

Prio:

Appl.No: CN201310525959

IPC: D04H 1/4382



图1

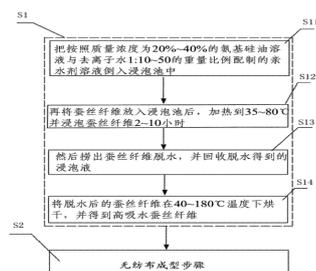


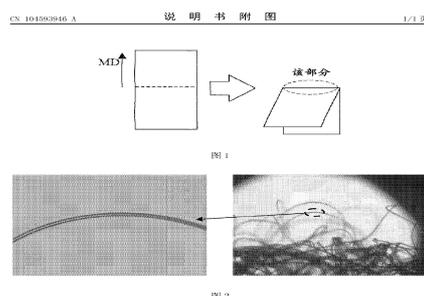
图2

MIXED FIBER SPUN BONDED NONWOVEN FABRIC AND USE THEREOF

The invention discloses a mixed fiber spun bonded nonwoven fabric and the use thereof. The object of the present invention is to provide a mixed fiber spun bonded nonwoven fabric which has excellent bulkiness, initial hydrophilicity, long-lasting hydrophilicity, flexibility, resistance to fluff, stretchability and touch and low stickiness, and is suitable for a surface sheet for absorbent articles such as sanitary napkins, panty liners, incontinence pads, disposable diapers and other absorbent articles. The mixed fiber spun-bonded nonwoven fabric comprises 90 to 10 % by weight of a long fiber type thermoplastic resin (A) and 10 to 90 % by weight of a long fiber type thermoplastic elastomer (B) wherein at least, the long fiber type thermoplastic resin (A) is hydrophilized. The present invention also provides a surface sheet and a second sheet for absorbent articles which sheets comprise the mixed fiber spun bonded nonwoven fabric and provides absorbent articles.

Publication: [CN 104593946 A 20150506](#)

Applicant: MITSUI CHEMICALS INC
Inventor: KUNIMOTO NAOSUKE
Prio: JP 20080529 2008141461, JP 20090126 2009014661
Appl.No: CN201410838345
IPC: D04H 1/4382



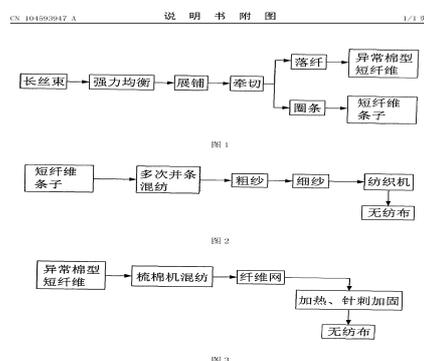
23

Process for producing textiles from low-strength fiber

The invention discloses a technology for producing textiles from low-strength fibers, comprising the following steps: firstly, stretch-breaking top making; secondly, stretch-breaking top making treatment; thirdly, fiber falling treatment, which is to directly blow off or break up prepared short fibers of tows subjected to four-time stretching stretch-breaking treatment through air flow or a fiber falling device, so as to prepare long cotton type short fiber with improved strength and good dispersity; fourthly, blending by a carding machine to prepare non-woven fabrics. Because of the short fibers of chitosan fibers and alginate fibers prepared by stretch-breaking top making, the strength of the fiber is greatly improved; therefore, the fiber can be blended with other fibers in the carding machine, or be spun by a manner of drawing and blending. The fibers which are prepared according to the technology and equipment provided by the invention can be directly drawn and blended with other fibers, such as cotton fibers, in the drawing and blending process of spinning, so that carding processing of the low-strength fibers such as the chitosan fibers and the alginate fibers can be avoided, and a new method is created for blending the low-strength fibers and the cotton fibers.

Publication: [CN 104593947 A 20150506](#)

Applicant: HUBEI LITIAN BIOENGINEERING CO LTD
Inventor: LIU XIAOHUI
Prio:
Appl.No: CN201410856198
IPC: D04H 1/4382



9

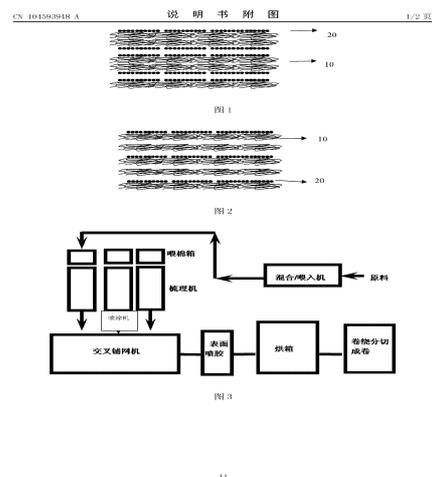
Method for manufacturing fluffy temperature-regulating warm-keeping material and fluffy temperature-regulating warm-keeping material

A method for manufacturing a fluffy temperature-regulating warm-keeping material and the fluffy temperature-regulating warm-keeping material manufactured by means of the method. The method comprises the steps of selecting low-melting-point fiber and other fiber to form a single net through carding, spraying a phase-change material along at least one part of length of the surface of the single net, laying the single net layer by layer, performing heat shaping and curing and accordingly forming the warm-keeping material. By means of the method for manufacturing the fluffy temperature-regulating warm-keeping material, the temperature-regulating warm-keeping material containing the phase-change material of appropriate proportion can be obtained, has satisfied temperature-regulating effect, meanwhile can keep or has the effect similar to original filling power and soft hand feeling to the greatest extent when the phase-change material is not added. In addition, the phase-change material can be well kept in the temperature-regulating warm-keeping material and has a washable characteristic.

Publication: [CN 104593948 A 20150506](#)

Applicant: 3M INNOVATIVE PROPERTIES CO
Inventor: FU XIAOSHUAN; GE YUE; XIANG HONGBING;
 XU FENG; ZHAO GUOTONG; ZOU WEI

Prio:
Appl.No: CN201310526669
IPC: D04H 1/541

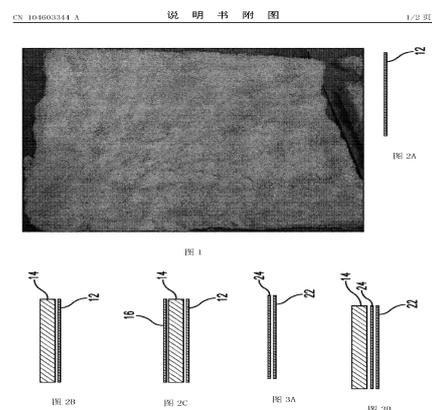


Flexible insulating structures and methods of making and using same

A flexible insulating structure includes a batting and a mixture of aerogel-containing particles and a binder, the aerogel-containing particles impregnating at least one layer of the batting. A method for preparing a flexible insulating structure comprises applying a mixture including aerogel-containing particles and a binder to a batting having one or more batting layers; and drying or allowing the binder to dry, thereby forming the flexible insulating structure.

Publication: [CN 104603344 A 20150506](#)

Applicant: CABOT CORP
Inventor: DOSHI DHAVAL A; NORWOOD CATHERINE M
Prio: US 20120626 201261664411, US 20130624
 2013047291
Appl.No: CN201380043635
IPC: D04H 1/42



Improved barrier fabrics

A process for manufacturing a nonwoven barrier fabric having a first face and an second opposite face, with the steps of applying a primer composition by vapor or aerosol deposition, to the first face of the fabric to form a layer of the primer composition, wherein the primer composition is essentially free of fluorinated compound, and applying a barrier composition comprising at least one unsaturated fluorinated compound by vapor or aerosol deposition to the layer of primer composition to form at least one, and preferably from one (1) to four (4), more preferably two (2) or three (2), layers of the barrier composition on the layer of primer composition and a fabric obtainable according to the process.

Publication: [CN 104603345 A 20150506](#)

Applicant: DU PONT
Inventor: BRABBS NOEL STEPHEN; HUBSCH ERIC ANTOINE; STACHNIK MIECZYSLAW MICHEL
Prio: US 20120809 201261681308, US 20130806 2013053784
Appl.No: CN201380042210
IPC: D04H 1/4291

Fibrous sheet

This fibrous sheet (1A) includes a heat-shrink fibrous layer (1d) comprising heat-shrinkable fibers and has embossed parts (2). The fibrous sheet (1A) has multiple hemispherical high protrusions (32), multiple hemispherical low protrusions (33), and multiple hemispherical medium protrusions (31). The medium protrusions (31) have been disposed apart from each other along the X direction and disposed in multiple rows apart from each other along the Y direction. The high protrusions (32) have been disposed apart from each other along the X direction and disposed in multiple rows apart from each other along the Y direction. Each high protrusion (32) is surrounded by four medium protrusions (31). The low protrusions (33) each have been disposed between every two medium protrusions (31) which are adjacent to each other in the X direction and between every two high protrusions (32) which are adjacent to each other in the Y direction.

Publication: [CN 104603346 A 20150506](#)

Applicant: KAO CORP
Inventor: KATOH TAKAHIRO; NAGASHIMA KEISUKE; TANAKA TAMAMI
Prio: JP 20120928 2012216012, JP 20130802 2013071044
Appl.No: CN201380045520
IPC: D04H 1/593

CN 104603346 A 说明书附图 1/10页

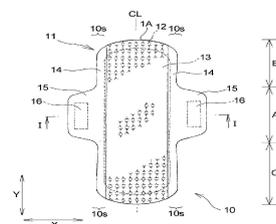


图1

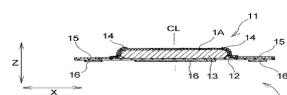


图2

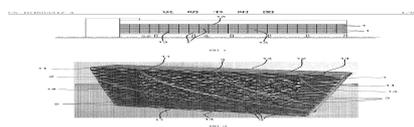
20

Multi -axial grid netting

Described is a permeable multi-axial grid netting comprising a plurality of first and second threads (4, 5) which are interlaced and superposed to form a grid (2) whose meshes (3) present an irregular and/or regular closed broken line (6); each first and second thread (4, 5) comprises a plurality of strands (7) defined by thin, elongate elements placed side by side and joined to each other by impregnation with an adhesive resin (8).

Publication: [CN 104603347 A 20150506](#)

Applicant: SAILMAKER INTERNAT S P A
Inventor: FIORENZI OLIVIERO



Prio: IB 20130906 2013058340, IT 20120906 BO
20120472
Appl.No: CN201380046387
IPC: D04H 3/045

Full-spandex weft-knitted gray cloth, production method of full-spandex weft-knitted gray cloth and lady underwear lining

The invention provides full-spandex weft-knitted gray cloth, a production method of the full-spandex weft-knitted gray cloth and a lady underwear lining. The production method comprises the steps that weft knitting is carried out on 40D and/or 70D spandex yarn on a double-sided machine, wherein the weft knitting process comprises the steps of carrying out stitch-containing knitting on the spandex yarn on upper dial needles and carrying out stitch-containing knitting on the spandex yarn on lower dial needles at the same time to form a stitch-containing double-sided weave, carrying out stitch-outlet knitting on the spandex yarn on the upper dial needles without knitting on the lower dial needles to form an upper single-sided weave, and carrying out stitch-outlet knitting on the spandex yarn on the lower dial needles without knitting on the upper dial needles to form a lower single-sided weave to complete one knitting cycle; one or more knitting cycles are carried out to obtain the full-spandex weft-knitted gray cloth. The full-spandex weft-knitted gray cloth is obtained through the method. The lady underwear lining comprises the full-spandex weft-knitted gray cloth. According to the production method, the full-spandex gray cloth can be obtained by knitting through the double-sided machine, and the spandex with a melting molding effect is adopted and can improve the elasticity and anti-sag property of the gray cloth.

Publication: [CN 104611822 A 20150513](#)

Applicant: PACIFIC TEXTILES LTD
Inventor: LI XIGUANG
Prio:
Appl.No: CN201310537564
IPC: D04B 1/16

CN 104611822 A 说明书附图 1/1 页

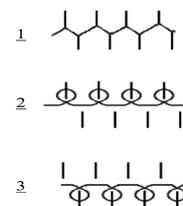
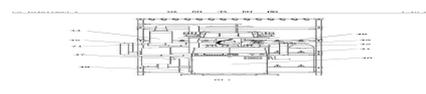


图 1

Hosiery knitting and end sewing integrated weft knitting hosiery knitter and use method

The invention discloses a hosiery knitting and end sewing integrated weft knitting hosiery knitter. A control panel is arranged on an electric control box. A working table is installed on a working box and provided with a hosiery knitting machine, a hosiery turning device, a mechanical arm and an end sewing machine. The mechanical arm is located between the hosiery knitting machine and the hosiery turning device. The hosiery turning device and the end sewing machine are located on the same straight line. The hosiery knitting machine is connected with a main motor through a conveying belt. The hosiery turning device is connected with a hosiery turning rod lifting motor and a tongs lifting motor through transmission devices respectively. A pair of mechanical arm tongs is installed on the mechanical arm. The mechanical arm is connected with a rotating motor through a worm and a gear. The end sewing machine is connected with an end sewing motor through a driving belt. The control panel is connected with the main motor, the hosiery turning rod lifting motor, the rotating motor and the end sewing motor through circuits respectively. An air suction pipe is arranged on the hosiery turning device and provided with a hosiery outlet cover. Thus, the hosiery knitting work, the hosiery turning work and the end sewing work can all be completed at a high automation degree.

Publication: [CN 104611823 A 20150513](#)



Applicant: ZHUJI LEIERFU MECHANICAL TECHNOLOGY CO LTD
Inventor: ZHAO SHUIFA
Prio:
Appl.No: CN201510049235
IPC: D04B 9/46

Lifting type heating device and circular knitting machine with lifting type heating device

The invention provides a lifting type heating device and a circular knitting machine with the lifting type heating device. The circular knitting machine comprises a weaving mechanism, a circular opening is formed in the upper end of the weaving mechanism, and cylindrical cloth woven through the weaving mechanism is downwards moved through the circular opening. The lifting type heating device comprises a heating roller, and the heating roller can pass through the circular opening to be lifted between a first position and a second position; at the first position, the heating roller is located above the circular opening of the weaving mechanism so as to be not in contact with the cylindrical cloth; at the second position, the heating roller is located in a circular channel defined by the inner lateral face of the cylindrical cloth so as to heat the cylindrical cloth. By means of the lifting type heating device and the circular knitting machine, the follow-up technological processes including cloth clipping, drying shaping and re-sewing can be easily omitted, the production process is effectively simplified, the production efficiency is improved, the production cost is reduced, the production energy consumption is reduced, and waste of energy sources is reduced.

Publication: [CN 104611824 A 20150513](#)

Applicant: SHANGHAI LEGION ELECTRONIC TECHNOLOGIES CO LTD
Inventor: WEN YUANQING; ZOU BIN
Prio:
Appl.No: CN201310539161
IPC: D04B 15/00

CN 104611824 A 说明书附图 1/19页

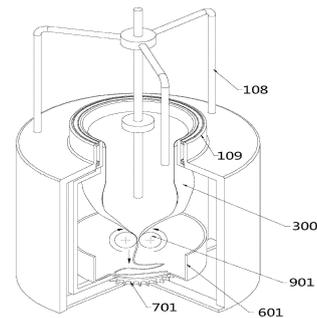


图 1

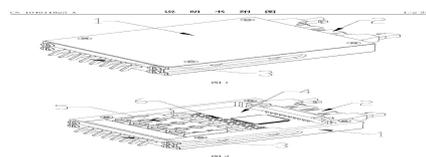
11

Magnetic force self-sustaining electro-magnetic selector of knitting machine

The invention relates to a magnetic force self-sustaining electro-magnetic selector of a knitting machine. The electro-magnetic selector is used in the knitting machine. A magnetic core of the electro-magnetic selector is made of high-remanence low-coercive-force magnetic materials, a coil of the magnetic core is connected with a pulse output interface of a control circuit board through a wire, the control circuit board processes knitting needle selection signals input through a data interface to output positive or negative short pulse drive signals from the pulse output interface to the coil of the magnetic core, so that the magnetic core gets into high-magnetic saturation instantly, and an N or S pole strong magnetic field is accordingly generated on the end face and is kept all the time. The magnetic force self-sustaining electro-magnetic selector has the advantages that the structure is reasonable; the maximum operating frequency of a tool bit of the selector can reach more than 200 Hz, and the selector is small in power consumption and low in heating amount when working for a long time; in addition, the selector is stable in work, safe, reliable and environmentally friendly, and energy is saved.

Publication: [CN 104611825 A 20150513](#)

Applicant: DENG CAISHEN; XIA WEIHUA
Inventor: DENG CAISHEN; XIA WEIHUA
Prio:



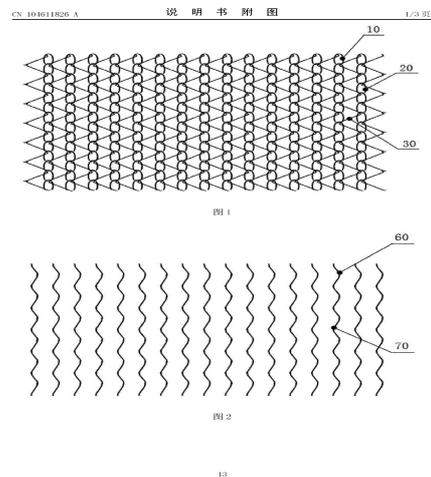
Appl.No: CN201510003043
IPC: D04B 15/68

Needle breakage preventing warp knitted fabric and production method thereof

The invention provides needle breakage preventing warp knitted fabric and a production method of the fabric, and relates to the technical field of textile. The production method is used for solving the problems that in the sewing process of existing warp knitted fabric, the fabric is prone to loosening, the breakage probability is high and the weaving method is complex. The needle breakage preventing warp knitted fabric comprises a front comb, a middle comb and a rear comb, full threading is adopted as a yarn threading mode, weaving tracks are 1-2/1-0, 0-0/1-1 and 1-0/2-3, one-time circulation is carried out every two rows, three chain blocks are formed in each row, six chain blocks are formed every time of circulation, a pattern weaving wheel carries out eight times of circulation, and namely forty eight chain blocks are formed. DTY and FDY weaving materials are adopted, by means of a specific pattern weaving structure, the fabric is formed through full threading weaving, and is good in stability of the longitudinal and transverse structure, wide in coverage range, good in hand feeling, high in sewability, good in fitness, resistant to friction, safe to use and particularly suitable for industries of automobiles, clothes, traveling with the strict sewing requirement, the yarn does not break easily, and holes and deformation are avoided.

Publication: [CN 104611826 A 20150513](#)

Applicant: QINGDAO SWAN KNITTING CO LTD
Inventor: DONG FUJIAN; WANG JUNGANG
Prio:
Appl.No: CN201510038669
IPC: D04B 21/00



Weaving method of gradient color warp knitting fabric

The invention discloses a weaving method of gradient color warp knitting fabric. The method includes the steps of a, selecting yarn A and yarn B as raw materials, wherein the dyeing properties of the yarn A and the yarn B are different; b, respectively performing beaming on the yarn A and the yarn B; c, using a warp knitting machine to weave the yarn A and the yarn B after beaming, to be more specific, penetrating the yarn A on the first guide bar on the front side of the warp knitting machine, and penetrating the yarn B on the second guide bar on the rear side of the warp knitting machine, wherein the warp run-in of the first guide bar and the warp run-in of the second guide bar are the same and keep unchanged, the yarn laying structure of the first guide bar and the yarn laying structure of the second guide bar are adjusted at every certain transverse row during weaving so as to adjust the length of an extension line formed by the yarn A and the length of the extension line formed by the yarn B to allow the appearance relation of the yarn A and the yarn B on the surface of the warp knitting fabric to change; d, dyeing the woven warp knitting fabric to form the gradient color warp knitting fabric.

Publication: [CN 104611827 A 20150513](#)

Applicant: WUXI AET TEXTILE CO LTD
Inventor: CHEN YALIANG
Prio:
Appl.No: CN201510084908
IPC: D04B 21/06

Double tricot machine with pattern comb guide bars and loop formation mechanism of double tricot machine

The invention discloses a double tricot machine with pattern comb guide bars. The double tricot machine comprises a loop formation mechanism, a front needle bar and a knocking-over bar and a sinking needle corresponding to the front needle bar; the loop formation mechanism comprises a guide bar; the guide bar comprises twelve pattern comb guide bars and five ground comb guide bars; the twelve pattern comb guide bars and the two ground comb guide bars carry out knitting on the front needle bar, and the front comb guide bars make loop formation stitch or weft laid-in stitch on the front needle bar; two of the ground comb guide bars carry out knitting on the front needle bar and match with pattern combs to form a fabric face; one ground comb forms loops on the front needle bar and a rear needle bar; the other two ground combs perform knitting on the rear needle bar. By the above process configuration, the fabric which is comfortable in hand feel, vivid in pattern and varied in color is knitted, the fabric has a breathable function, a buffering protect function of spacer fabric and the like and can be used for clothing fabric of clothes, and accordingly application fields of the spacer fabric are widened, and a new level is reached.

Publication: [CN 104611828 A 20150513](#)

Applicant: FUJIAN HUAFENG NEW MATERIAL CO LTD
Inventor: FANG HUASHAN; FANG ZHIJIAN; WU XINCHONG; XU TIANYU; YANG DEHUA; ZHUO LIQIONG

Prio:
Appl.No: CN201510071749
IPC: D04B 23/00

CN 104611828 A 说明书附图 1/2页

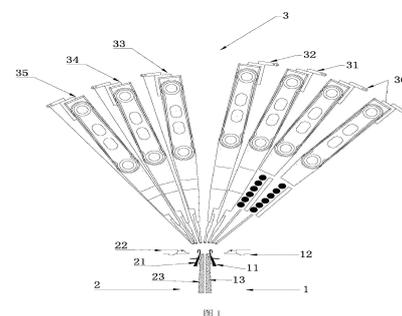


图 1

6

Two-needle bed jacquard warp knitting machine and looping mechanism thereof

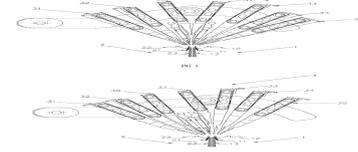
The invention discloses a two-needle bed jacquard warp knitting machine and a looping mechanism of the two-needle bed jacquard warp knitting machine. The looping mechanism comprises a guide bar, a front needle bed, a knocking-over bar corresponding to the front needle bed, a sinker corresponding to the front needle bed, a rear needle bed, a knocking-over bar corresponding to the rear needle bed and a sinker corresponding to the rear needle bed. The guide bar comprises three ground guide bar bodies forming a loop on the front needle bed, and the needle number of guide needles of the three ground guide bar bodies is E28; the other two ground guide bar bodies form a loop on the rear needle bed, and the needle number of guide needles of the two ground guide bar bodies is E14; jacquard guide bar bodies form a loop on the rear needle bed, and the needle number of guide needles of the jacquard guide bar bodies is E14; the needle type on the front needle bed is a latch needle, and the needle number is E28; the needle number of the corresponding sinker on the front needle bed is E28; the needle number of the corresponding knocking-over bar on the front needle bed is E28; the needle type on the rear needle bed is a latch needle, and the needle number is E14; the needle number of the corresponding sinker on the rear needle bed is E14; the needle number of the corresponding knocking-over bar on the rear needle bed is E14. Through the high-low-needle-number needle pieces and machinery arrangement, a special cloth cover effect can be achieved by weaving yarns with the density being over 600 D.

Publication: [CN 104611829 A 20150513](#)

Applicant: FUJIAN HUAFENG NEW MATERIAL CO LTD
Inventor: FANG HUASHAN; FANG ZHIJIAN; WU XINCHONG; XU TIANYU; YANG DEHUA; ZHUO LIQIONG

Prio:

CN 104611829 A 说明书附图 1/2页



6

Appl.No: CN201510020370
IPC: D04B 23/02

Two-needle bed warp knitting machine and looping mechanism thereof

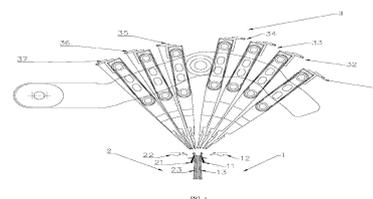
The invention discloses a two-needle bed warp knitting machine. The two-needle bed warp knitting machine comprises a looping mechanism. The looping mechanism comprises a guide bar, a front needle bed, a knocking-over bar corresponding to the front needle bed, a sinker corresponding to the front needle bed, a rear needle bed, a knocking-over bar corresponding to the rear needle bed and a sinker corresponding to the rear needle bed. The guide bar comprises seven guide bar bodies, wherein four guide bar bodies form a loop on the front needle bed, and the needle number of guide needles of the four guide bar bodies is E14; one guide bar body can form a loop either on the rear needle bed or on the front needle bed, and the needle number of guide needles of the guide bar body is E28; the other two guide bar bodies form a loop on the rear needle bed, and the needle number of guide needles of the two guide bar bodies is E28; the needle type on the front needle bed is a latch needle, and the needle number is E14; the needle number of the corresponding sinker on the front needle bed is E14; the needle number of the corresponding knocking-over bar on the front needle bed is E14; the needle type on the rear needle bed is a latch needle, and the needle number is E28; the needle number of the corresponding sinker on the rear needle bed is E28; the needle number of the corresponding knocking-over bar on the rear needle bed is E28. Through the high-low-needle-number needle pieces and machinery arrangement, a special cloth cover effect can be achieved by weaving yarns with the density being over 600 D.

Publication: [CN 104611830 A 20150513](#)

Applicant: FUJIAN HUAFENG NEW MATERIAL CO LTD
Inventor: FANG HUASHAN; FANG ZHIJIAN; WU XINCHONG; XU TIANYU; YANG DEHUA; ZHUO LIQIONG

Prio:
Appl.No: CN201510020538
IPC: D04B 23/02

CN 104611830 A 说明书附图 1/1 页



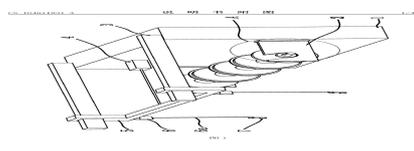
10

Knitting device of medical fabric

The invention provides a knitting device of medical fabric, and belongs to the technical field of machines. The knitting device of the medical fabric solves the technical problems that in the prior art, because no fastening devices are arranged between material barrels in a warp knitting machine, the material barrels shake in the cloth winding process and the winding effect is poor, and the technical problems that in the prior art, because no pulling devices are arranged on the material barrels, the heavy material barrels need to be carried manually, labor intensity is high and production efficiency is low. The knitting device of the medical fabric comprises a machine frame and further comprises two supporting frames, a supporting shaft, a storage roller and a pre-tightening piece, wherein the two supporting frames are fixedly connected to the upper side of the machine frame, the two ends of the supporting shaft are connected to the corresponding supporting frames respectively, the storage roller is arranged on the supporting shaft in a sleeving mode and fixedly connected with the supporting shaft in the circumferential direction, and the pre-tightening piece is arranged on the supporting shaft in a sleeving mode and fixes the storage roller to the supporting shaft in the axial direction. A driving piece used for driving the supporting shaft to rotate is further arranged on the machine frame. The knitting device of the medical fabric has the advantages of being good in winding effect and high in production efficiency.

Publication: [CN 104611831 A 20150513](#)

Applicant: ZHEJIANG JOHNSON CONTROLS WANFANG TEXTILE TECHNOLOGY CO LTD
Inventor: MAO WEIHUA



10

Prio:
Appl.No: CN201510042162
IPC: D04B 27/34

Heating roller for partitioned circulation heating and heating method thereof

The invention provides a heating roller for partitioned circulation heating and a heating method of the heating roller. The heating roller comprises a heating roller module, a power module, a circulation heating switching module and a control module. The heating roller module comprises a roller body, three inductive heating coils are arranged in the roller body in a surrounding mode, each inductive heating coil corresponds to a temperature area on the surface of the roller body, and each temperature area is provided with a thermal resistor. The power module is connected with the inductive heating coils through the circulation heating switching module. The control module is connected with the three thermal resistors and the circulation heating switching module. According to the temperature values measured by the thermal resistors, the connection states between the power module and the inductive heating coils are adjusted through the circulation heating switching module, two inductive heating power modules are omitted, the actual cost of the electromagnetic heating roller is lowered, and the utilization rate of a core component is improved.

Publication: **CN 104611832 A 20150513**

Applicant: SHANGHAI LEGION ELECTRONIC

TECHNOLOGIES CO LTD

Inventor: WEN YUANQING; ZOU BIN

Prio:

Appl.No: CN201310539721

IPC: D04B 37/00

CN 104611832 A 说明书附图 1/9 页

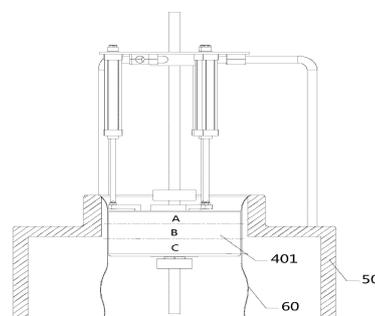


图 1

11

Elastic structure, and stringing method and stringing device for elastic structure

The invention relates to an elastic structure, and a stringing method and a stringing device for the elastic structure. The elastic structure is positioned at an annular elastic portion and comprises a first channel and a second channel. The first channel and the second channel are arranged on two sides of the elastic portion, and two ends of the first channel and two ends of the second channel are respectively communicated with the external. The elastic structure, the stringing method and the stringing device have the advantages that the elastic structure is arranged at the annular elastic portion and can be arranged at positions such as openings of textile bags, tops of clothes, waists of the clothes, cuffs of the clothes or leg openings of the clothes, the first channel and the second channel are arranged on the two sides of the elastic portion, accordingly, ropes can be conveniently strung into the first channel and the second channel, and the openings of the textile bags, the tops of the clothes, the waists of the clothes, the cuffs of the clothes or the leg openings of the clothes can be tightened or loosened by the aid of the ropes; the elastic structure is extremely simple and can bring convenience for stringing, and excellent fastening effects can be realized.

Publication: **CN 104611833 A 20150513**

Applicant: GUANGDONG ESQUEL TEXTILES CO; GUILIN ESQUEL TEXTILES CO LTD

Inventor: HUANG JIAHUA; LI QIUFENG; QIU CHAOWEN; ZHANG RUNMING

Prio:

Appl.No: CN201510079605

CN 104611833 A 1/9 页

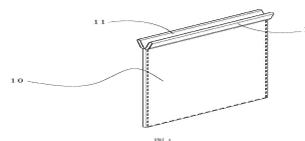


图 1

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IPC: D04D 9/00

Nap quilt inner laying machine

The invention discloses a nap quilt inner laying machine and belongs to the technical field of nap textile equipment. The nap quilt inner laying machine is formed by combining two nap swing laying frames, a conveying bed, four nap combers, an automatic breaking machine and a control console. The two nap swing laying frames are arranged side by side and are erected above the conveying bed. Each nap swing laying frame is formed by installing an upper transmission bamboo curtain, a lower transmission bamboo curtain and a swing roller frame on a frame body in a combined mode. The nap feeding end of each upper transmission bamboo curtain is connected with a nap conveying port of one nap comber, and the nap feeding end of each lower transmission bamboo curtain is connected with a nap conveying port of another nap comber. The automatic breaking machine is transversely installed at the tail of the conveying bed. The control console controls the upper transmission bamboo curtains, the lower transmission bamboo curtains, the swing roller frames, the conveying bed, the nap combers and the automatic breaking machine respectively, wherein the upper transmission bamboo curtains, the lower transmission bamboo curtains, the swing roller frames, the conveying bed, the nap combers and the automatic breaking machine are connected to a nap laying frame. The nap quilt inner laying machine has the advantages that due to multiple times of laying and roll finishing, the number of the layers of laid nap is increased, and the laying efficiency is improved; accordingly, the quality of nap quilt inners and the production efficiency of the nap quilt liners are improved; besides, the whole process is automatically controlled, so the outgoing quality of the nap quilt inners is guaranteed.

Publication: [CN 104611834 A 20150513](#)

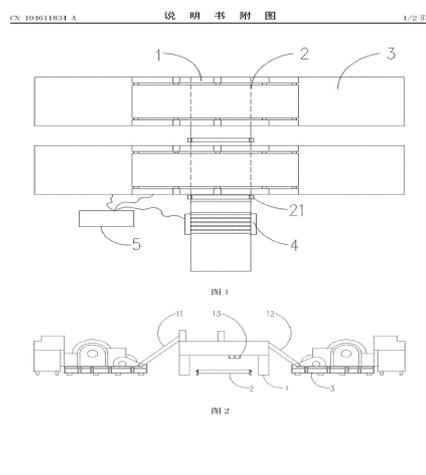
Applicant: NINGXIA YISIMAN VILLUS PRODUCTS CO LTD

Inventor: JIN PENGLING; YANG LIMING

Prio:

Appl.No: CN201510038972

IPC: D04H 1/02



Flocculus comprising aromatic polymer fiber containing sulfuryl and preparation method thereof

The invention relates to high temperature resistant anti-flaming heat-insulation flocculus comprising aromatic polymer fiber containing sulfuryl and a preparation method thereof. The flocculus comprises the aromatic polymer fiber (A) containing sulfuryl, heat-insulation fiber (B), anti-flaming fiber (C) and low melting point bonding fiber (D). The aromatic polymer fiber (A) containing sulfuryl is prepared through aromatic polymer containing sulfuryl, and the aromatic polymer containing sulfuryl is prepared by polymerizing three monomers, namely an aromatic monomer (a) containing meta diamine, a monomer (b) containing sulfuryl and amidogen and an aromatic monomer (c) containing para dibasic carboxylic groups or halide (c) thereof. The weight percentage of the sulfuryl in the polymer ranges from 4% to 10%. The flocculus has fine high temperature resistance, anti-flaming effect and washing resistance, the elasticity and the heat insulation performance of the flocculus are guaranteed after washing, and the flocculus can serve as a filler of heat insulation uniforms for personnel of electric power, gas stations, coal mines, forest fires, flammable and explosive chemical enterprises on the cold condition.

Publication: [CN 104611835 A 20150513](#)

Applicant: SHANGHAI TANLON FIBER CO LTD

Inventor: CHEN SHENGHUI; QIAN CHUNFANG; WANG XIAOFENG; WU JIA; ZHANG GUANGXU

Prio:
Appl.No: CN201510078345
IPC: D04H 1/02

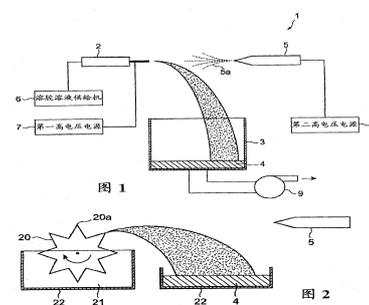
Inorganic fiber structure and process for producing same

Disclosed is an inorganic fiber structure which comprises inorganic nanofibers having an average fiber diameter of 3 [μ]m or less and has a void ratio of 90% or more, and in which the inorganic fibers in the whole body including interior portions thereof are adhered together by means of an inorganic adhesive agent. Also disclosed is a process for producing an inorganic fiber structure, which comprises the following steps (i) to (iii): (i) spinning inorganic fibers from a spinning-purpose inorganic sol solution containing a compound mainly composed of an inorganic component by means of an electrostatic spinning technique; (ii) irradiating the inorganic fibers with an ion having an opposite polarity to those of the inorganic fibers to accumulate the inorganic fibers, thereby producing an inorganic fiber assembly; and (iii) applying an adhesion-purpose inorganic sol solution containing a compound mainly composed of an inorganic component to the whole body including interior portions of the inorganic fiber assembly and removing an excess portion of the adhesion-purpose inorganic sol solution from the inorganic fiber assembly by means of air blow, thereby producing the inorganic fiber structure in which the fibers in the whole body including interior portions thereof are adhered together by means of an inorganic adhesive agent.

Publication: **CN 104611836 A 20150513**

Applicant: FUKUOKA PREFECTURE; JAPAN VILENE CO LTD; UNIV KYUSHU NAT UNIV CORP
Inventor: KAWABE MASAOKI; KAWAKAMI KOEI; SAKAI SHINJI; TARAO TAKASHI; WATANABE RIE; YAMAGUCHI TETSU
Prio: JP 20090114 2009005678, JP 20090723 2009171857
Appl.No: CN201510036727
IPC: D04H 1/4209

CN 104611836 A 说明书附图 1/14页



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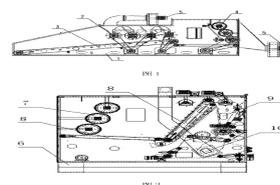
Coconut coir mattress sheet producing process

The invention discloses a coconut coir mattress sheet producing process. The coconut coir mattress sheet producing process includes the steps that 1, raw materials are cut, dust and chippings are removed, and fiber is loosened in a strip-shaped mode; 2, the loosened fiber is placed on a coconut coir finer layer of a fine loosening feeding flat screen, and the mixed and sorted fiber is sent to a clamping mesh laying machine through an air-flow mesh forming machine; 3, the mixed and sorted fiber is laid on a cotton layer output by the clamping mesh laying machine; 4, the cotton layer is conveyed into a drying oven through a screen, and the coconut coir mattress sheet is formed by baking the cotton layer through the drying oven and pressing and cooling the cotton layer. The coconut coir mattress sheet producing process has the advantages that the yield is increased by more than two times, the dust capacity in a production workshop is obviously improved, and the process is more environmentally friendly; the loss rate is reduced obviously, the production cost is lowered, and the market competitiveness of a product is improved.

Publication: **CN 104611837 A 20150513**

Applicant: QU JIANGUO; WANG YONGXIANG
Inventor: WANG YONGXIANG
Prio:
Appl.No: CN201410844926

CN 104611837 A 说明书附图 1/14页



26

IPC: D04H 1/4266

Method for producing silk mask base cloth through cocoons and silk mask

The invention discloses a method for producing silk mask base cloth through cocoons. The method comprises the following steps that (1), cocoon washing is performed, namely, the cocoons are washed with clean water to remove dust and debris; (2), wetting is performed, namely, the washed cocoons are soaked in water to be sufficiently wet; (3), alkali soaking is performed, namely, the wet cocoons are evenly placed in a steaming barrel, and alkali water which can right wet the cocoons is sprayed on the cocoons so that the cocoons can be wet again; (4), steaming is performed, namely, the cocoons are steamed with steam so that sericin can be completely swollen; (5), washing is performed, namely, the steamed cocoons are washed with clean water; (6), cocoon peeling is performed, namely, pupas are peeled off; (7), the cocoons with the pupas peeled off are made into arc-shaped silk net films; (8), the silk net films are bleached, neutralized with a glacial acetic acid solution, dried and finally stamped to form the silk mask base cloth. By means of the method, the activity of the sericin can be maintained to the maximum degree. The technological process is simple, the nutrients of silk can be sufficiently utilized, and the silk mask base cloth is a pure natural skin-whitening, moisturizing, anti-wrinkling and UV-resisting product.

Publication: [**CN 104611838 A 20150513**](#)

Applicant: UNIV SOUTHWEST

Inventor: XI XINGHANG; XIA QINGYOU; YANG PEI

Prio:

Appl.No: CN201510040948

IPC: D04H 1/4266

Non-woven fabric comprising blend fiber based on aromatic polyamide and polyarylsulfone and high temperature resistant flame retardant fiber and preparation method

The invention relates to a non-woven fabric comprising blend fiber based on aromatic polyamide and polyarylsulfone and high temperature resistant flame retardant fiber and a product thereof and a preparation method thereof. The non-woven fabric comprises the blend fiber (A) based on aromatic polyamide and polyarylsulfone and selectively comprises high temperature resistant flame retardant fiber (B) and conductive fiber (C); the blend fiber (A) based on aromatic polyamide and polyarylsulfone comprises 40 to 98wt% of aromatic polyamide and 2 to 60wt% of polyarylsulfone in a mixed manner. The non-woven fabric has fine flame retardance, heat insulation and high temperature resistance and high size stability at high temperature and can serve as garment internal flame retardant heat-insulation liner.

Publication: [**CN 104611839 A 20150513**](#)

Applicant: SHANGHAI TANLON FIBER CO LTD

Inventor: CHEN SHENGHUI; HU ZHENGYU; QIAN CHUNFANG; SHEN JIAN; WANG XIAOFENG; WU JIA; ZHANG GUANGXU

Prio:

Appl.No: CN201510079407

IPC: D04H 1/4342

Flocculus made of mixed polymer fiber containing aromatic polyamide and polyarylsulfone and preparation method thereof

The invention relates to high temperature resistant anti-flaming heat-insulation flocculus made of mixed polymer fiber containing aromatic polyamide and polyarylsulfone and a preparation method thereof. The flocculus comprises the mixed polymer fiber (A) containing aromatic polyamide and polyarylsulfone, heat-insulation fiber (B), anti-flaming fiber (C) and low melting point bonding fiber (D). The mixed polymer fiber (A) containing aromatic polyamide and polyarylsulfone is a blend fiber on the basis of the aromatic polyamide and polyarylsulfone and comprises 40 to 98wt% of aromatic polyamide and 2 to 60wt% of polyarylsulfone in a mixed manner. The flocculus has fine high temperature resistance, anti-flaming effect and washing resistance, the elasticity and the heat insulation performance of the flocculus are guaranteed after washing, and the flocculus can serve as a filler of heat insulation uniforms for personnel of electric power, gas stations, coal mines, forest fires, flammable and explosive chemical enterprises on the cold condition.

Publication: [CN 104611840 A 20150513](#)

Applicant: SHANGHAI TANLON FIBER CO LTD
Inventor: CHEN SHENGHUI; HU ZHENGYU; QIAN CHUNFANG; SHEN JIAN; WANG XIAOFENG; WU JIA; ZHANG GUANGXU

Prio:

Appl.No: CN201510079422

IPC: D04H 1/587

Device and method for fast preparing medical drug-loaded non-woven fabrics

The invention discloses a device and method for fast preparing medical drug-loaded non-woven fabrics. The device mainly comprises a spray-head assembly, an air compressor, an airflow distribution valve, a liquid storage tank and airflow tubes, wherein the spray-head assembly is composed of an airflow adapter, a shunt piece, a charging barrel, a heating ring and a temperature sensor. The spray-head assembly is connected with the air compressor, the airflow distribution valve and the liquid storage tank through the airflow tubes. The connection mode of the spray-head assembly is that the airflow adapter, the shunt piece and the charging barrel are threadedly connected with each other in a coaxial mode from inside to outside, and the heating ring and the temperature sensor are matched with each other to conduct heating and temperature measuring respectively on the charging barrel; a polymer melt feeding hole and a micro-airflow inlet are formed in the vertical side face of the charging barrel. According to the method for fast preparing the medical drug-loaded non-woven fabrics, a melt-blow mode is utilized, so that blowing and drawing are conducted on polymer melt through high speed airflow which carries medicament droplets, the drug-loaded non-woven fabrics is formed, and topical application of drug is conducted on a wound directly; gaps are adjusted through rotating, and the drug-loaded non-woven fabrics is finally formed; the non-woven fabrics is loaded with drugs through the mode that the high speed airflow passes through the medical liquid and carries the medicament droplets.

Publication: [CN 104611841 A 20150513](#)

Applicant: UNIV BEIJING CHEMICAL
Inventor: DING YUMEI; JIAO ZHIWEI; LI HAoyi; TAN JING; XIE PENGCHENG; YAN HUA; YANG WEIMIN; ZHANG LUO

Prio:

Appl.No: CN201510070052

IPC: D04H 1/70

CN 104611841 A 说明书附图 1/1 页

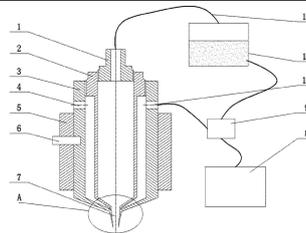


图 1

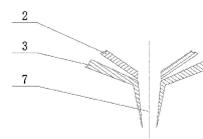


图 2

Grid-shaped non-woven fabrics with pearl dots

The invention relates to grid-shaped non-woven fabrics with pearl dots. The grid-shaped non-woven fabrics with the pearl dots comprise grid portions, multiple grid portions are combined to form a plane-shaped grid, hollow parts of the grid are provided with fabric, the front side and the reverse side of the fabric are evenly provided with pearl dots, and multiple small holes are formed inside each grid portion. According to the grid-shaped non-woven fabrics with the pearl dots, the friction between the fabric and the contact surface is increased when dirt is cleaned away, the dirt produced in the cleaning process can be cleared away through multiple small holes in the grid, and the work efficiency and cleaning degree are improved.

Publication: [CN 104611842 A 20150513](#)

Applicant: SUZHOU BORAGE DAILY CHEMICAL CO LTD
Inventor: GE HONGWEI; SUN XIAOYANG; ZHAI QINYONG

Prio:
Appl.No: CN201510011479
IPC: D04H 13/00

CN 104611842 A 说明书附图 1/1页

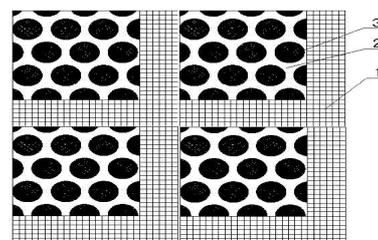


图 1

5

Process for making non-woven fabrics using polylactide resin blends

Non-woven fabrics are made in a spun-melt process, in which a PLA resin blend is melt-spun into filaments, which are pneumatically drawn and then deposited onto a surface to produce the fabric. The PLA resin includes 1-25% of certain aliphatic or aliphatic-aromatic polyesters that have a number average molecular weight from 4,000 to 70,000 g/mol.

Publication: [CN 104619900 A 20150513](#)

Applicant: NATUREWORKS LLC
Inventor: GREEN ROBERT A; KAMANN CHAD H;
KIRSCHBAUM DONAVON; RANDALL JED
RICHARD; VALENTINE JAMES R
Prio: US 20120429 201261639925, US 20130426
2013038348
Appl.No: CN201380034550
IPC: D04H 1/435

Multilayer nonwoven fabric and method for producing same

Provided are: a multilayer nonwoven fabric having spunbond nonwoven fabric layers and at least one meltblown nonwoven fabric layer, said multilayer nonwoven fabric having high strength and high resistance to water pressure, and a method for producing the multilayer nonwoven fabric. The multilayer nonwoven fabric comprises three or more layers, wherein the two outermost layers are spunbond nonwoven fabric layers, and at least one inner layer is a meltblown nonwoven fabric layer. The resin constituting the spunbond nonwoven fabric layers has a melting enthalpy (ΔH) of 90 J/g or less, as measured from a melting enthalpy curve obtained by raising the temperature of the resin at 10 DEG C/minute after maintaining the temperature at -10 DEG C for 5 minutes in a nitrogen atmosphere using a differential scanning calorimeter (DSC).

Publication: [CN 104619901 A 20150513](#)

Applicant: IDEMITSU KOSAN CO
Inventor: KOORI YOHEI; MINAMI YUTAKA; TAKEBE

Prio: TOMOAKI
JP 20120914 2012203490, JP 20130913
2013074905
Appl.No: CN201380047056
IPC: D04H 3/007

Acrylic fiber and spandex blended fabric

The invention discloses acrylic fiber and spandex blended fabric. The acrylic fiber and spandex blended fabric is prepared from, by weight, 100 parts of acrylic and spandex fiber, 80 parts to 100 parts of cotton fiber, 10 parts to 20 parts of flame-retardant viscose fiber and 5 parts to 15 parts of polyarylester through a conventional method in a blended mode. The acrylic fiber and spandex blended fabric has the high flame-retardant performance, is comfortable to wear and can be applied to the protection series of products.

Publication: [CN 104630979 A 20150520](#)

Applicant: SHANGHAI WANJING TEXTILE SCIENCE &
TECHNOLOGY CO LTD
Inventor: YUAN JUAN
Prio:
Appl.No: CN201510068345
IPC: D04B 1/14

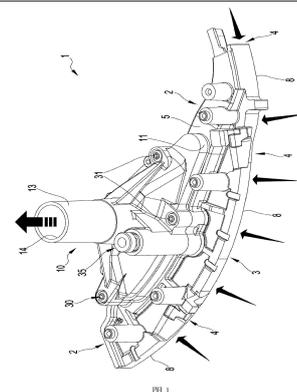
Wire absorption equipment for needle dial group of circular weft knitting machine

The invention provides wire absorption equipment (1) for the needle dial group of a circular weft knitting machine. The wire absorption equipment is provided with a lower bottom (3), an absorption opening (14) and a wire absorption space (20). The lower bottom (3) defines an inlet (4). The inlet is defined as an inlet for one or more wires in the wire absorption equipment. The absorption opening is arranged above an air absorption source and is connected with the air absorption source. The wire absorption space is configured to extend between the inlet and the wire absorption opening. The wire absorption equipment comprises at least one wire separation element (50) or named grommet.

Publication: [CN 104630980 A 20150520](#)

Applicant: SANTONI & C SPA
Inventor: LONATI ETTORE; LONATI FAUSTO; LONATI
TIBERIO
Prio: IT 201311111 BS 20130163
Appl.No: CN201410123107
IPC: D04B 15/60

CN 104630980 A 说明书附图 1/10页



Thread aspirating device for a dial group of a circular knitting machine

A thread aspirating device (1) for circular knitting machines, comprising a body (2) of the thread aspirating device having a lower side (3), defining an inlet opening (4) enabling inlet of one or more threads in the thread aspirating device, and an upper side (5), provided with an engaging portion (6) delimiting a passage opening (7) in the upper side. The thread aspirating device comprises a mouthpiece (10) extending between an open lower end (11), defining a mounting portion (12) complementarily shaped to the engaging portion, and an upper end (13) provided with an aspirating opening (14). The mouthpiece is superiorly mounted on the body of the device so that the mounting portion corresponds to the engaging portion; the mouthpiece and the body internally define an aspirating space (20) of the threads between the inlet opening and the aspirating opening. The mouthpiece and the body overall form, in mounting condition, a thread aspirating device in a single body.

Publication: [CN 104630981 A 20150520](#)

Applicant: SANTONI & C SPA
Inventor: LONATI ETTORE; LONATI FAUSTO; LONATI TIBERIO
Prio: IT 20131111 BS 20130162
Appl.No: CN201410128158
IPC: D04B 15/60

CN 104630981 A 说明书附图 1/9 页

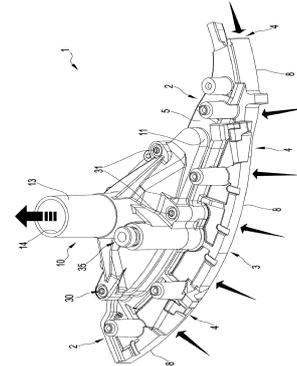


图 1

21

Production method of color-gradient warp knitting fabric

The invention discloses a production method of color-gradient warp knitting fabric. The production method includes the steps of a, material selection, namely selecting yarns A and yarns B which are different in color as raw materials; b, warping, namely respectively warping the yarns A and the yarns B; c, knitting, namely knitting the warped yarns A and yarns B by adopting a warp knitting machine, wherein the yarns A are threaded in a first guide bar on the front side of the warp knitting machine, the yarns B are threaded in a second guide bar on the back side of the warp knitting machine, yarn laying tissues are symmetrically adopted to the first guide bar and the second guide bar, warp run-in of the first guide bar and the second guide bar is adjusted every other certain rows during knitting, the warp run-in of the first guide bar decreases sequentially, and the warp run-in of the second guide bar increases sequentially. Showing relations of surfaces of the warp knitting fabric on the first guide bar and the second guide bar are changed by adjusting the warp run-in of the first guide bar and the second guide bar, and the color gradient effect of the warp knitting fabric is achieved.

Publication: [CN 104630982 A 20150520](#)

Applicant: WUXI AET TEXTILE CO LTD
Inventor: CHEN YALIANG
Prio:
Appl.No: CN201510084934
IPC: D04B 21/06

Flower shape chain block arrangement technology of double-needle bar knitting machine, as well as guide bar shogging mechanism

The invention discloses a flower shape chain block arrangement technology of double-needle bar knitting machine. A 8:1 six-row flower chain arrangement mode is adopted aiming at a complete texture eight-course technology: for the 8:1 arrangement mode, 48 pattern chain blocks are included and wrap a pattern chain disc by a circle, and six flower type chain blocks are needed to knit one course. The invention further discloses a guide bar shogging mechanism, which comprises a worm gear, a transmission gear, the pattern chain disc and a push rod; the pattern chain disc is driven to rotate by the worm gear through the transmission gear, grooves are formed in the edge of the pattern chain disc and used for fixing 48 pattern chain blocks, the 48 pattern chain blocks are included and wrap a pattern chain disc by a circle, a guide bar is shogged under the action of the pattern chain blocks and the push rod when the pattern chain disc is rotating, and the height difference between the pattern chain blocks is equal to the shogging distance. The machine is not required for lengthening and the knitting is more smooth and successful, the productivity can be increased by 20%, and the quality of gray fabrics and the production efficiency can also be increased.

Publication: [CN 104630983 A 20150520](#)

Applicant: FUJIAN HUAFENG NEW MATERIAL CO LTD

Inventor: GUO LEI

Prio:

Appl.No: CN201510106335

IPC: D04B 21/06

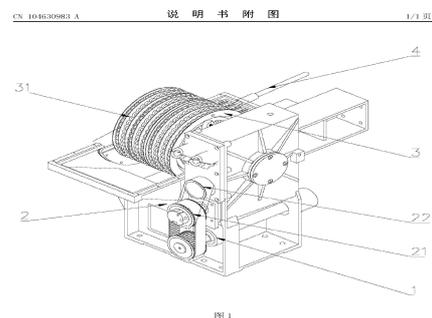


图 1

7

Method for weaving dragonfly knot

The invention provides a method for weaving a dragonfly knot. The dragonfly knot is formed by weaving three parts, namely a head, a chest and a tail in sequence. The method is characterized by comprising the following steps: weaving the head by using a button knot, sewing the eyes by using woolen yarns, weaving the chest by using a weaving method for forming a double-Jing shape (Jing is a Chinese character), inserting the legs and the wings in the weaving process, and weaving the tail by using a weaving method for forming a Jing shape. According to the method disclosed by the invention, the wings and the legs of the dragonfly are prominent, the stereoscopic impression is high, and the style is relatively vivid.

Publication: [CN 104630984 A 20150520](#)

Applicant: UNIV TIANJIN POLYTECHNIC

Inventor: DU YANMEI; SUN MINGZHU

Prio:

Appl.No: CN201310571923

IPC: D04C 1/06

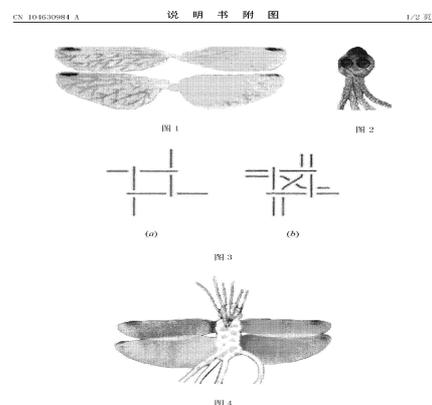


图 4

6

Preparing method for superfine glass fiber cotton felt with super-layer structures

The invention discloses a preparing method for superfine glass fiber cotton felt with super-layer structures. Superfine centrifugal glass fiber and thermosetting phenolic resin bonding agents are used as raw materials of a drying method core material, and the superfine glass fiber cotton felt with the super-layer structures is formed through the process of superfine centrifugal glass fiber preparing through a centrifugal injection method, thermosetting phenolic resin bonding agent spraying through an atomizing sprinkler, negative pressure wind attraction, venturi tube speed reduction, cotton collection and high-temperature solidifying. The diameter of fiber of the superfine glass fiber cotton felt which is prepared through the method and provided with the super-layer structures is fine, one super-layer structure is arranged between every two layers, all the layers are arranged in an approximately parallel mode, the cotton felt has high strength, the heat conducting coefficient can be $0.02 \text{ W}/(\text{m}\cdot\text{K})$ (20 DEG C)- $0.035 \text{ W}/(\text{m}\cdot\text{K})$ (20 DEG C), and the felt has excellent heat preserving, heat insulating, sound insulating and noise reducing properties.

Publication: [CN 104630985 A 20150520](#)

Applicant: SHANGHAI AIRCRAFT DESIGN & RES INST
COMMERCIAL AIR; UNIV NANJING
AERONAUTICS

Inventor: CHEN ZHAOFENG; CHEN ZHOU; LI BINBIN;
WANG MIAO; XUE RUILI; ZHANG JUN; ZHOU
LIANGDAO

Prio:

Appl.No: CN201310571798

IPC: D04H 1/4218

CN 104630985 A 说明书附图 1/1 页

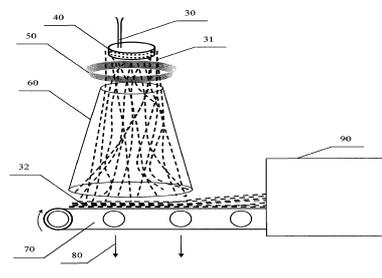


图 1

6

Polyester base material and preparation method thereof

The invention provides a polyester base material and a preparation method thereof. The problems that an existing polyester base material is not uniform in transverse and longitudinal tensile resistance, poor in ductility and not good in high temperature performance can be solved. The polyester base material is formed by compositing two polyester short fiber nets and a polyester spun-bonded fiber net clamped between the two polyester short fiber nets. The polyester base material is smooth and uniform in cloth cover and uniform in transverse and longitudinal tensile resistance, and can effectively reduce the production cost, effectively solve the problem that styrene-butadiene-styrene copolymer waterproof rolls are not thoroughly soaked or squeezed in the production process, and then ensure the optimal high temperature performance of the finally-produced product.

Publication: [CN 104630986 A 20150520](#)

Applicant: SHANDONG TIANDINGFENG NONWOVENS CO
LTD

Inventor: JIANG RUIPING; LI QIANG; NIE SONGLIN;
WANG ZHANKUI; ZHEN LEI

Prio:

Appl.No: CN201510047103

IPC: D04H 1/435

CN 104630986 A 说明书附图 1/1 页



图 1

8

High temperature resistance filtration material and manufacturing method thereof

The invention provides a high temperature resistance filtration material, a manufacturing method thereof and a filtration device comprising the filtration material, and relates to a sulfuryl containing wholly-aromatic polymer fiber. The sulfuryl containing wholly-aromatic polymer fiber is characterized in that meta-position diamine containing aromatic monomer a, sulfuryl and amino containing monomer b and para-position dicarboxylic acid group containing aromatic monomer or halogen compound c are polymerized to form sulfuryl containing wholly-aromatic polymer, and the weight percent of sulfuryl in the sulfuryl containing wholly-aromatic polymer is 4-10%. The filtration material comprises a surface layer. The surface layer comprises the sulfuryl containing wholly-aromatic polymer fiber (A), a selectable para-position aromatic polyamide fiber (B) and a selectable high temperature resistance fiber (C), and the high temperature resistance fiber (C) has strength retention above 80% after treatment for 50h in a high-temperature environment of 180 DEG C, and preferably has strength retention above 85%. The high temperature resistance filtration material has fine high temperature hydrolysis resistance, high temperature size stability, high temperature strength retention and elongation retention.

Publication: [CN 104630987 A 20150520](#)

Applicant: SHANGHAI TANLON FIBER CO LTD
Inventor: CHEN SHENGHUI; QIAN CHUNFANG; WANG XIAOFENG; WU JIA; ZHANG GUANGXU
Prio: CN 20150114 201510017070
Appl.No: CN201510069433
IPC: D04H 1/4382

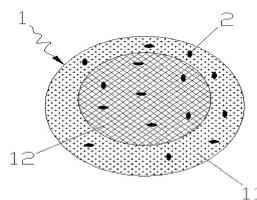
Novel hot-bonded nonwoven fabric and production process thereof

The invention discloses novel hot-bonded nonwoven fabric and a production process thereof. The novel hot-bonded nonwoven fabric is made by hot-bonding and setting ES (ethylene-propylene) elastic fiber which is opened, carded and webbed; the ES elastic fiber is sheath-core elastic fiber made of sheath masterbatches and core masterbatches according to a sheath-core ratio of 70:30 to 30:70 by hot melting and high-pressure extrusion spinning; at least one of a sheath layer and a core layer of the ES elastic fiber is added elastomer material accounting for 5% to 50% of the corresponding layer; the elastomer material is plastic elastomer. The production process includes spinning, opening, carding, hot air bonding and reeling. The novel hot-bonded nonwoven fabric is super soft, low in modulus, good in flexibility, good in skin-fitness and free of friction and is especially suitable for use as a surface layer, a flow guide layer, a covering layer or the like for sanitary materials, such as diapers, sanitary pads and absorbent pads.

Publication: [CN 104630988 A 20150520](#)

Applicant: NINGBO QIXING NONWOVEN CLOTH CO LTD
Inventor: WENG WANCHONG; XIE DAOXUN; ZHANG WANZHI
Prio:
Appl.No: CN201510077654
IPC: D04H 1/4382

CN 104630988 A 说明书附图 1/3页



Non-woven fabric comprising sulfuryl contained wholly-aromatic polymer fiber and heat-resistant and fire-retardant fiber and product of non-woven fabric and production method of non-woven fabric and product

The invention relates to non-woven fabric comprising a sulfuryl contained wholly-aromatic polymer fiber and a heat-resistant and fire-retardant fiber and a product of the non-woven fabric and a production method of the non-woven fabric and the product of the non-woven fabric. The non-woven fabric comprises a sulfuryl contained wholly-aromatic polymer fiber (A), preferably a heat-resistant and fire-retardant fiber (B) and preferably a conducting fiber (C). The sulfuryl contained wholly-aromatic polymer fiber (A) is made of a sulfuryl contained aromatic polymer which is aggregated by monomers, namely a meta-position diamine contained aromatic monomer (a), a sulfuryl contained amino monomer (b) and a para-position dicarboxylic acid group contained aromatic monomer or yl halide thereof (c), and quality percentage content of sulfuryl in the polymer ranges from 4% to 10% in the sulfuryl contained wholly-aromatic polymer. The non-woven fabric good in fire-prevention, heat-insulation and high temperature resistance performance and dimensionally stable under high temperature can be used as a fire-prevention and heat-insulation backing of clothes.

Publication: [CN 104630989 A 20150520](#)

Applicant: SHANGHAI TANLON FIBER CO LTD
Inventor: CHEN SHENGHUI; QIAN CHUNFANG; WANG XIAOFENG; WU JIA; ZHANG GUANGXU

Prio:
Appl.No: CN201510079433
IPC: D04H 1/4382

Polyimide fiber membrane with cross-linking morphology and preparation method of polyimide fiber membrane

The invention provides a polyimide fiber membrane with a cross-linking morphology and a preparation method of the polyimide fiber membrane. Dicarboxylic anhydrides and diamine with flexible groups are subjected to solution condensation polymerization, precursor-polyamic acid of polyimide is prepared, and then a polyamic acid fiber membrane is prepared by electrostatic spinning. Temperature programmed control heat treatment is performed, and the polyamic acid is subjected to thermal imidization cyclization reaction to form polyimide. Besides, by the aid of the characteristic that the flexible polyimide can be slightly melted at high temperature, fibers in the fiber membrane are slightly melted by controlling heat treatment programs, and a fusion welding point is formed between the adjacent fibers, so that the polyimide fiber membrane with the cross-linking morphology is prepared. The prepared polyimide fiber membrane is provided with a cross-linking structure, high in mechanical property, simple in preparation process and easy to process and has an excellent industrialized application prospect, a pore structure can be adjusted, and cross-linking degree and cross-linking structure distribution can be controlled by adjusting programmed temperature rise parameters.

Publication: [CN 104630990 A 20150520](#)

Applicant: CHANGZHOU ADVANCED MAT INST OF BEIJING UNIV CHEMIC
Inventor: HUANG SUTAO; QI SHENGLI; TIAN GUOFENG; WU DEZHEN

Prio:
Appl.No: CN201510069083
IPC: D04H 1/542

CN 104630990 A 说明书附图 1/4页

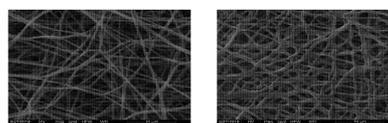


图 1 (a)

图 1 (b)

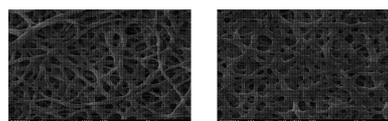


图 1 (c)

图 1 (d)

Polar fleece fabric capable of absorbing moisture and heating and production method thereof

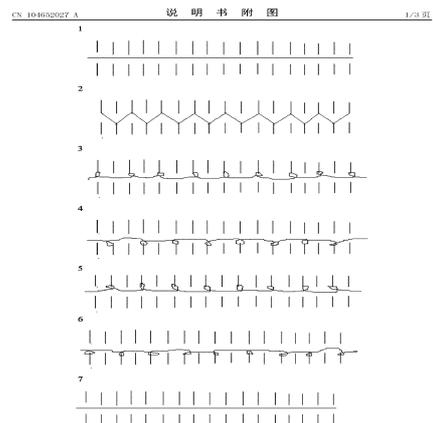
The invention relates to a polar fleece fabric capable of absorbing moisture and heating. The polar fleece fabric comprises a base yarn and a veil. The base yarn is made of hollow polyester fiber commingled yarns, the veil is made of fiber commingled yarns capable of absorbing moisture and heating, and the fiber commingled yarns capable of absorbing moisture and heating include the following ingredients by mass percent: 35%-45% of coffee carbon fiber, 35%-45% of viscose fiber and residual biology base PDT fiber. Products of the polar fleece fabric capable of absorbing moisture produced according to the invention have the characteristics of supple hand feeling, good elasticity and loftiness, light, thin and warm-keeping performances, good dyeable performance, moisture absorption and heating performances. The invention further provides a production method of the polar fleece fabric capable of absorbing moisture and heating. The polar fleece fabric produced according to the production method has the effects of moisture absorption and heating, lightweight and warm-keeping performances, and is comfortable to wear.

Publication: [CN 104652026 A 20150527](#)
Applicant: QUANZHOU HAITIAN MATERIAL TECHNOLOGY CORP
Inventor: CHEN LIQUN; WANG CHAOSHENG; WANG HUAPING; WANG QIMING; XU QIUSHU; XU YIDONG
Prio:
Appl.No: CN201510071953
IPC: D04B 1/04

Weaving method of high modulus fiber knitted anti-prick protective material

The invention discloses a weaving method of a high modulus fiber knitted anti-prick protective material. A double-layer knitted fabric is woven by using polyethylene fiber yarns of ultra-high molecular weight on a double-side circular knitting machine in a looping manner; a filling layer is woven between the double-layer knitted fabrics through a yarn laying mode, so that a fabric of a three-layer structure is woven. The material woven by the weaving method of the high modulus fiber knitted anti-prick protective material has superior anti-prick performance, good flexibility, scalability and elasticity and high wearing comfort.

Publication: [CN 104652027 A 20150527](#)
Applicant: FUXUAN TEXTILE INDUSTRY JIANGSU CO LTD
Inventor: CAI ZHENGBO; LAI RUI; XIA HAOSHENG
Prio:
Appl.No: CN201510070519
IPC: D04B 1/12



Burnt-out polar fleece fabric and production method thereof

The invention relates to burnt-out polar fleece fabric. The fabric is made by a burnt-out procedure and comprises surface yarns and bottom yarns, an alkaline burnt-out assistant is adopted in the burnt-out procedure, the surface yarns are made of polyester fiber, the base yarns are viscose fiber blended yarns, and the viscose fiber blended yarns contain the following materials by weight percentage: 10-20 percent of cotton fiber, 40-60 percent of viscose fiber and the balance of polyamide fabric. By adopting the burnt-out polar fleece fabric, the moisture absorption and heat preservation effect is better, and the burning phenomenon in the burnt-out process is avoided. The invention also provides a production method of the burnt-out polar fleece fabric. By adopting the production method, the burning phenomenon in the burnt-out process can be avoided, and the burnt-out polar fleece fabric produced by the method has better moisture absorption and preservation effects.

Publication: [CN 104652028 A 20150527](#)

Applicant: QUANZHOU HAITIAN MATERIAL TECHNOLOGY CORP

Inventor: CHEN LIQUN; WANG CHAOSHENG; WANG HUAPING; WANG QIMING; XU QIUSHU; XU YIDONG

Prio:

Appl.No: CN201510071895

IPC: D04B 1/16

Cotton imitation fabric produced by ceramic grinding carbon brush process and production method of cotton imitation fabric

The invention relates to a cotton imitation fabric produced by a ceramic grinding carbon brush process. The fabric is woven by first yarns and second yarns in a conventional manner, wherein both the first yarns and the second yarns comprise the following components in percentage by mass: 1-5% of spandex fibers, 5-10% of breathable and moisture-permeable polyester fibers and the balance of bio-based PDT fibers. Through the adoption of the soft and skin-friendly properties of PDT fibers, the elastic comfort of the spandex fibers and the breathable and moisture-permeable performance of the breathable and moisture-permeable polyester fibers and the combination of a ceramic grinding carbon brush, the properties such as affinity, breathable and moisture-permeable effects and wearing comfort of the cotton imitation fabric can meet the cotton imitation standard. The invention also discloses a production method of the cotton imitation fabric produced by the ceramic grinding carbon brush process. The method is simple and easy in production process and is suitable for large-scale production; the produced cotton imitation fabric is excellent in affinity, breathable and moisture-permeable effects and wearing comfort.

Publication: [CN 104652029 A 20150527](#)

Applicant: QUANZHOU HAITIAN MATERIAL TECHNOLOGY CORP

Inventor: CHEN LIQUN; LIU HONGFEI; WANG CHAOSHENG; WANG HUAPING; WANG QIMING; XU YIDONG

Prio:

Appl.No: CN201510071965

IPC: D04B 1/18

Circular disc thread regulating structure for circular knitting machine

The invention relates to a circular disc thread regulating structure for a circular knitting machine. The circular disc thread regulating structure can prevent a too long floating thread from extending into a cloth supporting frame. A weaving mechanism is arranged on a machine frame, and is in a circular ring-shaped arrangement, the top of a fixing rod is fixedly arranged on the machine frame, the fixing rod is in vertical arrangement and is positioned in the enter of the weaving mechanism, a rotating rod is rotationally arranged in the fixing rod, the top of the rotating rod is connected with a motor of the circular knitting machine, and the motor can drive the rotating rod to rotate; the cloth supporting frame is fixed with the bottom of the rotating rod, and the rotating rod can drive the cloth supporting frame to rotate; a positioning block is fixedly arranged on a connecting block, is in a circular ring shape, and is arranged in a way of surrounding a connecting block installing hole; a circular disc is fixedly or rotationally arranged outside the fixing rod in a sleeving way, is positioned in the middle of the weaving mechanism and is positioned right above the cloth supporting frame; the circular disc is in a reverse barrel shape; the middle part of the top plate is provided with a circular disc installing hole; the positioning block is arranged in the circular disc installing hole in a sleeving way; the top plate is fixed with the connecting block; a side plate is in a circular ring shape; the periphery of the top of the side plate is fixed with the periphery of the top plate, and in addition, the side plate is positioned in the middle of the weaving mechanism.

Publication: [CN 104652030 A 20150527](#)

Applicant: JIAXING GANGHENG KNIT CO LTD
Inventor: CAO XINYAO; CHEN FENGMING; ZHANG FULIN
Prio:
Appl.No: CN201510084124
IPC: D04B 15/00

CN 104652030 A 说明书附图 1/8页

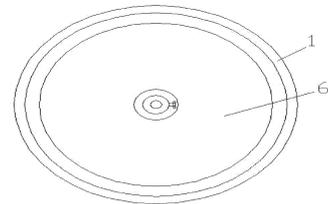


图 1

7

COMMAND DEVICE FOR A KNITTING MACHINE

A command device (1) for a knitting machine, the device comprising a body (2) of the device configured for movably housing at least an actuator, at least a command organ (5) movably mounted and associated to the body (2) and destined to interact with one or more organs of a knitting machine, for example one or more needles of the knitting machine, and/or with one or more threads infeeding into the knitting machine, and at least an actuator, movably housed at least partially in the body (2) and destined to controlledly move the command organ (5). The device (1) further comprises a support frame (10), associated to the body (2) and configured so as to increase the structural solidity of the body (2).

Publication: [CN 104652031 A 20150527](#)

Applicant: SANTONI & C SPA
Inventor: LONATI ETTORE; LONATI FAUSTO; LONATI TIBERIO
Prio: IT 20131121 BS 20130172
Appl.No: CN201410104358
IPC: D04B 15/22

CN 104652031 A 说明书附图 1/9页

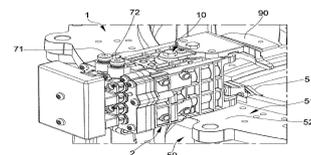


图 1

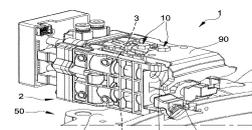


图 2

18

Glossy nylon jacquard cloth weaving process

The invention relates to the technical field of cloth weaving processes and particularly relates to a glossy nylon jacquard cloth weaving process. The glossy nylon jacquard cloth weaving process comprises the following steps: (1) loading yarns: selecting 38.13% of 40D nylon semi-glossy yarns, 36.03% of 50D polyester yarns, 18% of 70D spandex yarns and 7.84% of 140D spandex yarns to weave; (2) knotting: winding the knitted yarns on a warp beam to complete winding, and arranging the yarns into a special yarn arrangement structure; (3) beaming: winding the yarns on the warp beam in parallel according to the length and the width, and uniformly distributing the yarns on the warp beam; (4) performing warp beaming: putting the warp beam which is wound with the yarns into a plate head of a warp knitting machine; (5) weaving: weaving through the warp knitting machine according to the special yarn arrangement, and transmitting the yarns into a middle weaving bed to weave through the plate head and the warp beam respectively; (6) pre-examining gray fabric through a quality control department after unloading, and storing after packaging. The glossy nylon jacquard cloth weaving process has the technical effects that the yarn process is unique, and the glossy nylon jacquard cloth finished product is firm in structure due to the special yarn arrangement structure.

Publication: [CN 104652032 A 20150527](#)

Applicant: SHANGHAI QUANXIN TEXTILE PRODUCT CO LTD

Inventor: KONG LINGXI

Prio:

Appl.No: CN201510103446

IPC: D04B 21/08

CN 104652032 A 说明书附图 1/2 页

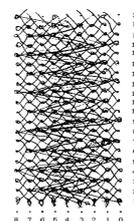


图 1



图 2

6

Loop formation mechanism for warp knitting machine

The invention relates to a loop formation mechanism for a warp knitting machine. The loop formation mechanism comprises a guide bar device, a cast-off device, a needle bed device and a settlement device, wherein the guide bar device comprises a ground guide bar part and a wool yarn guide bar part; the wool yarn guide bar part comprises one or more wool yarn guide bars, a wool yarn guide bar cradle and a pendulum shaft; the wool yarn guide bars are arranged on the wool yarn guide bar cradle; the wool yarn guide bar cradle is arranged on the pendulum shaft; ground guide bars of the ground guide bar part are arranged on a ground guide bar fixing seat which is fixedly arranged on a rack; two ground guide bars are arranged on each of the front and rear parts of the rack, and are symmetrical relative to the pendulum shaft; the wool yarn guide bars are positioned between the ground guide bars on the front and rear parts of the rack; yarn guide needles are arranged on the ground guide bars and the wool yarn guide bars, and are positioned above the cast-off device, the needle bed device and the settlement device. The loop formation mechanism has the beneficial effects that the loop formation mechanism for the warp knitting machine reliably moves when a fabric is woven, and is suitable to run at high speed and low in failure rate, the specification of the fabric is convenient to regulate, and the production efficiency is improved.

Publication: [CN 104652033 A 20150527](#)

Applicant: CHANGZHOU WUJIN WUYANG TEXTILE MACHINERY CO LTD

Inventor: GU SHAOANG; HU ZHE; WANG MINQI; WANG SHUI; ZHAO QI

Prio:

Appl.No: CN201510012654

CN 104652033 A 说明书附图 1/1 页

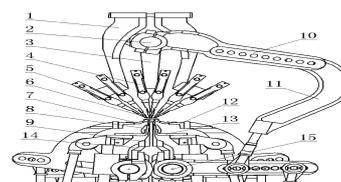


图 1

6

IPC: D04B 23/00

Weft thread laying device and weft thread laying method for warp knitting machine

The invention relates to the technical field of a warp knitting machine, in particular to a weft thread laying device and a weft thread laying method for the warp knitting machine. Two fall-plate devices are oppositely arranged on a front end plate; each fall-plate device comprises two first cylinders oppositely mounted on the front end plate by cylinder supports, liftable clamp plates connected with the driving ends of the first cylinders by first connecting rods, separating needle blocks mounted at the bottoms of the clamp plates and fall plates arranged on the bottom surfaces of the clamp plates; a yarn guide coordinating action device comprises a front supporting base, a rear supporting base, a mounting pipe for connecting the front and rear supporting bases, a mounting base arranged on the mounting pipe and two first guide rods oppositely arranged on the mounting base; both the first guide rods are provided with first linear bearings capable of sliding in a sleeving way; a sliding block is connected between the first linear bearings; a first push cylinder and a second push cylinder are respectively connected between the mounting base and the sliding block; the driving ends of the first push cylinder and the second push cylinder are connected by a second connecting rod; the sliding block is connected with a needle seat with a plurality of straight needles.

Publication: [CN 104652034 A 20150527](#)

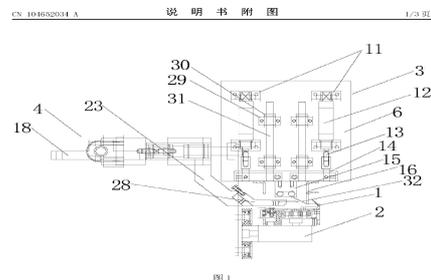
Applicant: CHANGZHOU HONGFA ZONGHENG
ADVANCED MATERIAL TECHNO

Inventor: CHEN XIANGWEI; JI XIAOQIANG; TAN
KUNLUN; WANG ZHIQIANG

Prio:

Appl.No: CN201510065476

IPC: D04B 27/00



Yarn creel of multi-axis warp knitting machine

The invention provides a yarn creel of a multi-axis warp knitting machine. The yarn creel comprises a base, a yarn shaft, a yarn retaining plate, a bearing group, a brake disc, a brake pad and a retaining ring, wherein the bearing group comprises a bearing I and a bearing II, the base sequentially penetrates through the brake disc, the yarn retaining plate, the bearing I, the bearing II and the retaining ring, the bearing II is fixed by the retaining ring, the middle part of the yarn shaft is provided with a cylindrical inner cavity, the bearing I and the bearing II are respectively embedded into the two ends of the inner cavity of the yarn shaft, a rubber ring I and a rubber ring II respectively sleeve the two ends of the yarn shaft, the exterior of the brake disc is in contact with the brake pad, and the brake pad is connected with the base. The yarn creel has the advantages that the contact between a yarn and the yarn base is blocked, and the end breaking of the yarn is prevented; the friction force between a yarn spindle and the base is reduced, the drawing and plugging drag is reduced, and each spindle of yarns is controlled by tension; the operation is convenient, the control of yarn tension is more effective, uniform and convenient, the running efficiency of equipment and the product quality are improved, the production cost is reduced, the modification difficulty is decreased, and the cost is lower.

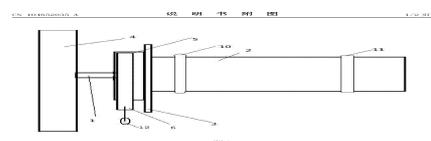
Publication: [CN 104652035 A 20150527](#)

Applicant: JIANGSU HENGSHEN CO LTD

Inventor: HAO XIAOFEI; LIU YANG; LYU MINGLIANG;
WANG YIMIN; ZHU WEIGANG

Prio:

Appl.No: CN201510108197



IPC: D04B 27/10

Preparation method of three-dimensional four-way mixed fabric

The invention discloses a preparation method of a three-dimensional four-way mixed fabric. The method comprises the following steps: (1) arranging two spindles on a knitting machine tool in a manner of single alternate arrangement, interlaced alternate arrangement or spaced alternate arrangement; and (2) knitting according to a four-step three-dimensional braiding technology to prepare the three-dimensional four-way mixed fabric. The three-dimensional four-way mixed fabric is prepared by different knitted yarns with equal cross sectional area; the problem of uniform distribution of different yarns on the cross section of a fabric is solved; and a SiC matrix composite material enhanced by the mixed fabric can have the advantages of excellent oxidation resistance, high strength, low cost and the like.

Publication: [CN 104652036 A 20150527](#)

Applicant: NAT UNIV DEFENSE TECHNOLOGY
Inventor: WANG HONGLEI; YANG BEI; YANG HUIYONG;
YIN LIUYAN; YU JINSHAN; YU XIONG; ZHOU XINGUI

Prio:
Appl.No: CN201510129317
IPC: D04C 1/06

CN 104652036 A 说明书附图 1/7页

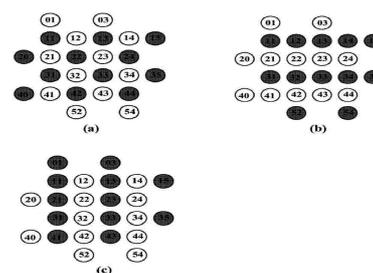


图 1

Sulfuryl-containing aromatic high-temperature resistant fiber, non-woven fabric and filter material containing sulfuryl-containing aromatic high-temperature resistant fiber, and preparation methods thereof

The invention relates to a sulfuryl-containing aromatic high-temperature resistant fiber, a non-woven fabric and a filter material containing the sulfuryl-containing aromatic high-temperature resistant fiber, and preparation methods thereof. The sulfuryl-containing aromatic high-temperature resistant fiber derives from a sulfuryl-containing aromatic polymer, wherein the sulfuryl-containing aromatic polymer is formed by polymerizing three monomers of a meta-position aromatic monomer a containing diamine, a monomer b containing sulfuryl and amino; a para-position aromatic monomer c containing dicarboxylic acid group or a halogen compound thereof, wherein in the sulfuryl-containing aromatic polymer, the content of the sulfuryl in the polymer in percentages by weight is 4-10 percent. The filter material containing the fiber has good filter efficiency, good high-temperature dimensional stability and high-temperature strength retention rate.

Publication: [CN 104652037 A 20150527](#)

Applicant: SHANGHAI TANLON FIBER CO LTD
Inventor: CHEN SHENGHUI; QIAN CHUNFANG; WANG XIAOFENG; WU JIA; ZHANG GUANGXU
Prio: CN 20150114 201510017343
Appl.No: CN201510069578
IPC: D04H 1/4342

Filtering material containing blended aromatic polyamide fiber with sulfonyl groups and high-temperature-resistant fiber and manufacturing method of filtering material

The invention provides a high-temperature-resistant filtering material and a preparation method thereof as well as a filtering device comprising the filtering material. The filtering material comprises a surface layer, wherein the surface layer comprises a blended aromatic polyamide fiber (A) with sulfonyl groups, an optional meta-aromatic polyamide fiber (B) and an optional high-temperature-resistant fiber (C); the blended aromatic polyamide fiber (A) with sulfonyl groups contains 40-98wt% of aromatic polyamide and 2-60wt% of polyarylsulfone; aromatic polyamide and polyarylsulfone are blended. After being treated for 50 hours in an environment with a high temperature of 180 DEG C, the high-temperature-resistant fiber (C) has a strength retention ratio not less than 80%, and preferably has a strength retention ratio not less than 85%. The high-temperature-resistant filtering material provided by the invention has favorable high-temperature hydrolysis resistance performance, high-temperature size stability, high-temperature strength retention ratio and extension retention ratio.

Publication: [CN 104652040 A 20150527](#)

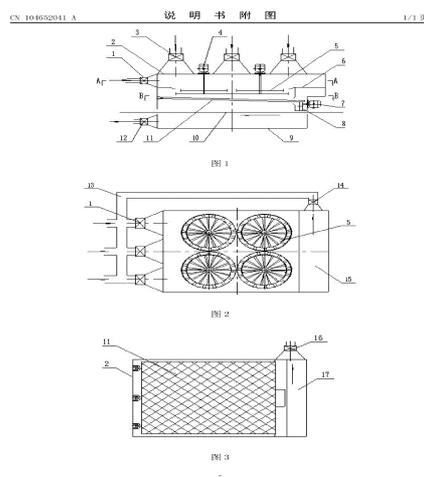
Applicant: SHANGHAI TANLON FIBER CO LTD
Inventor: CHEN SHENGHUI; QIAN CHUNFANG; WANG XIAOFENG; WU JIA; ZHANG GUANGXU
Prio: CN 20150114 201510017081
Appl.No: CN201510069599
IPC: D04H 1/4382

Novel dry-process fiber fabric forming equipment

The invention discloses novel dry-process fiber fabric forming equipment belonging to the field of dry-process fiber fabric equipment. According to the equipment, air is used as a carrier for dispersing and transporting fibers, raw fiber agglomerates are scattered by using a scattering fan, and the dispersed fibers fall off after being sieved by using a vibrating screen and are uniformly spread on a forming net under the guide of a negative-pressure draught fan to form a fabric. the fiber agglomerates and the dispersed fibers move towards the same direction in the fiber scattering process, so that static electricity is not easily generated, and the fibers are uniformly dispersed; no air flow disturbance of the blades of the scattering fan is generated when the net is spread, so that the net spreading quality is high; and the unutilized fiber agglomerates are circularly operated, so that the utilization ratio of raw materials is high.

Publication: [CN 104652041 A 20150527](#)

Applicant: SHAANXI SCIENCE AND ENGINEERING ELECTROMECHANICAL SCIENCE & TECHNOLOGY CO LTD
Inventor: LI LONG; LUO XIAODONG; SHENG ZHILIN; YAN HEPING
Prio:
Appl.No: CN201510115857
IPC: D04H 1/732



Transmission mechanism for biaxial needle-punching machine

The invention discloses a transmission mechanism for a biaxial needle-punching machine. The transmission mechanism comprises a first eccentric gear, a second eccentric gear, connecting rods, a first rocker arm, a second rocker arm, a connecting rack, a first needle beam and a second needle beam, wherein the first eccentric gear and the second eccentric gear are respectively arranged at the left end and the right end of the upper part of the connecting rack through the connecting rods; the first rocker arm and the second rocker arm are respectively arranged on the left side and the right side of the connecting rack, and are respectively connected with the first eccentric gear and the second eccentric gear through the connecting rods; the first needle beam and the second needle beam are respectively arranged at the left end and the right end of the lower part of the connecting rack, and respectively do lifting motion through the first rocker arm and the second rocker arm. Through the manner, according to the transmission mechanism for the biaxial needle-punching machine provided by the invention, the first needle beam and the second needle beam respectively do lifting motion through the first rocker arm and the second rocker arm, so that the work efficiency is greatly improved; the labor intensity of a worker is alleviated; and meanwhile, the transmission mechanism is good in needle punching effect, and relatively uniform in punching, and meets the requirements of enterprises.

Publication: [CN 104652042 A 20150527](#)

Applicant: CHANGSHU ZHENTAI NONWOVEN MACHINERY CO LTD

Inventor: LIU RENCAI

Prio:

Appl.No: CN201510124838

IPC: D04H 18/02

CN 104652042 A 说明书附图 1/1 页

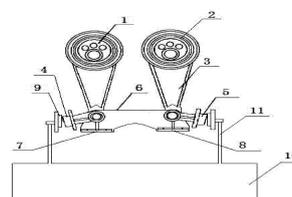


图 1

5

Pile fabric and method for producing same

The present invention pertains to a pile fabric containing, at a standing fiber section, acrylic-based synthetic fibers obtained by spinning a spinning starting liquid containing 90-99 parts by mass of polymer A and 1-10 parts by mass of polymer B. Polymer A is obtained by polymerizing composition A, which contains 40-97 wt% of acrylonitrile, 0-5 wt% of a sulfonate-containing monomer, and 3-60 wt% of another co-polymerizable monomer. Polymer B is obtained by polymerizing composition B, which contains 0-70 wt% of acrylonitrile, 20-90 wt% of an acrylic acid ester, and 10-40 wt% of a sulfonate-containing monomer, and is a polymer that dissolves in a mixed solvent comprising water and at least one organic solvent selected from the group consisting of N,N-dimethylformamide, N,N-dimethylacetoamide, dimethyl sulfoxide, and acetone. At least a portion of the acrylic-based synthetic fibers configuring the standing fiber section have been stained or subjected to discharge printing processing, and the apparent specific gravity of the acrylic-based synthetic fibers that have been stained or subjected to discharge printing processing is 0.8-1.1.

Publication: [CN 104662216 A 20150527](#)

Applicant: KANEKA CORP

Inventor: ANAHARA MASARU; NISHIDA SOHEI

Prio: JP 20120924 2012209438, JP 20130918 2013075115

Appl.No: CN201380049597

CN 104662216 A 说明书附图 1/2 页

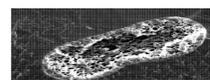


图 1

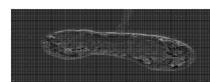


图 2

17

IPC: D04B 1/04

Pulling a semiconductor single crystal according to the czochralski method and silica glass crucible suitable therefor

A non-woven fabric comprising fibers of which homopropylene is the main component, characterized in that the MFR of the fibers is 30g/10mins-65g/10mins, the mean single fiber fineness of the fibers is 0.5-3.5dtex, the mass per unit area of the non-woven fabric is 5g/m²-40g/m², the thermocompression bonded area ratio of the non-woven fabric is 5-15%, and the heat seal strength of the non-woven fabric measured at a hot plate temperature of 136 DEG C is at least 6N/25mm.

Publication: **CN 104662217 A 20150527**

Applicant: ASAHI KASEI FIBERS CORP
Inventor: HUENERMANN MICHAEL; KAYSER THOMAS;
LEHMANN WALTER
Prio: JP 20120920 2012207221, JP 20130919
2013075316
Appl.No: CN201380048973
IPC: D04H 3/007

CN 104662217 A 说明书附图 1/1页

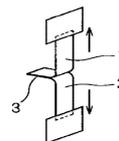


图 1

11

Spun-bonded non-woven fabric

The purpose of the present invention is to provide a polypropylene spun-bonded non-woven fabric exhibiting excellent flexibility, bending resistance, texture, and strength. This spun-bonded non-woven fabric comprises a propylene polymer composition including a propylene polymer (A) having a melting point of at least 120 DEGREES, and a C15-21 fatty acid amide. It is preferable that an oleic acid amide be used as the C15-21 fatty acid amide. It is also preferable that the propylene polymer composition include a propylene polymer (B) having a melting point of less than 120 DEGREES.

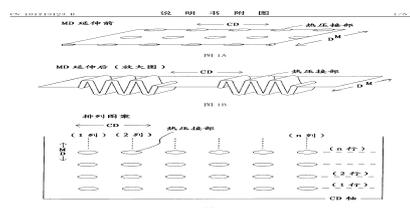
Publication: **CN 104662218 A 20150527**

Applicant: MITSU CHEMICALS INC
Inventor: KAWAKAMI YOSHIHISA; KUNIMOTO
NAOSUKE; OTA KOSUKE; SUZUKI KENICHI
Prio: JP 20120927 2012213925, JP 20130926
2013076061
Appl.No: CN201380049882
IPC: D04H 3/007

Composite spunbonded nonwoven

Publication: **CN 101713123 B 20150506**

Applicant: JNC FIBERS CORP; JNC KK
Inventor: ITO HIDEMI; TERAOKA TAIJU
Prio: JP 20081008 2008262187, JP 20090804
2009181774
Appl.No: CN200910176150



11

IPC: D04H 3/147

Processing apparatus for hot-air treatment of nonwoven fabric and processing process for the same

Publication: **CN 102212935 B 20150506**

Applicant: JNC FIBERS CORP; JNC KK
Inventor: TERADA HIROKAZU; TERAKAWA TAIJU
Prio: JP 20100402 2010086394
Appl.No: CN201110083602
IPC: D04H 1/54

CN 102212935 B 说明书附图 1/3页

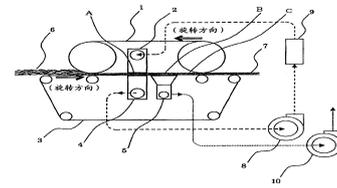


图 1

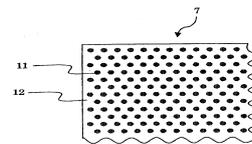


图 2

10

Rod vernier device and adjusting installation bracket adopting same

Publication: **CN 102277684 B 20150513**

Applicant: TIANJIN HETIAN APPLIANCE CO LTD
Inventor: ZHANG MIN; ZHANG XUESHUANG
Prio: CN201110190365
IPC: D04B 35/18

CN 102277684 B 说明书附图 1/3页

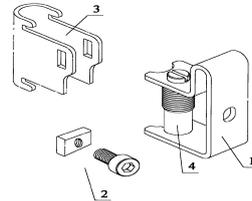


图 1

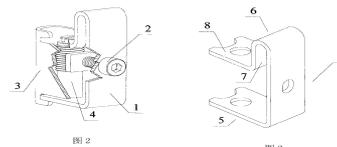


图 2

图 3

6

High loft spunbonded web

Publication: **CN 102482819 B 20150506**

Applicant: 3M INNOVATIVE PROPERTIES CO
Inventor: BERRIGAN MICHAEL R; FOX ANDREW R; LISE JONATHAN M; STELTER JOHN D
Prio: US 20100630 2010040590, US 20090702 49710209
Appl.No: CN201080037458

CN 102482819 B 说明书附图 1/3页

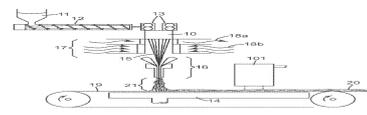


图 1

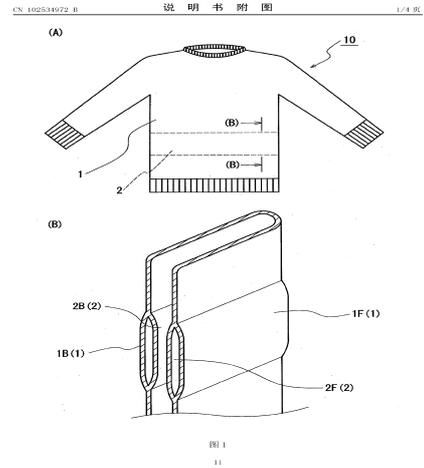
10

IPC: D04H 3/016

Knitting method of knitted fabric having multilayered structure

Publication: [CN 102534972 B 20150513](#)

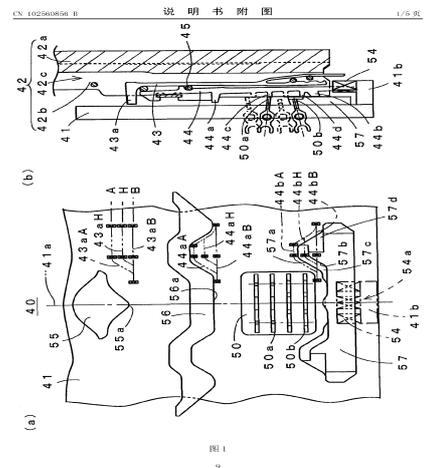
Applicant: SHIMA SEIKI MFG
Inventor: MATSUMOTO YUUKI
Prio: JP 20101224 2010288587
Appl.No: CN201110437702
IPC: D04B 1/00



Needle Selector

Publication: [CN 102560856 B 20150513](#)

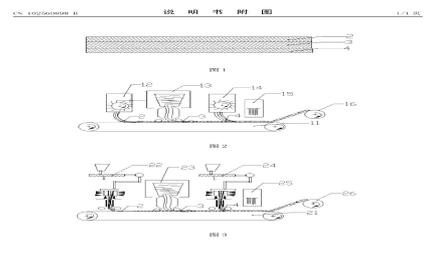
Applicant: SHIMA SEIKI MFG
Inventor: MIYAMOTO MASANORI
Prio: JP 20101006 2010226860
Appl.No: CN201110309885
IPC: D04B 15/36



Basalt composite non-woven fabric production line

Publication: [CN 102560898 B 20150513](#)

Applicant: SHANDONG JOFO NONWOVEN MATERIALS CO LTD
Inventor: CHEN GUANGLIN
Prio:
Appl.No: CN201110456352



IPC: D04H 3/002

Multi-layer composite basalt non-woven material and preparation method thereof

Publication: **CN 102560903 B 20150513**

Applicant: SHANDONG JOFO NONWOVEN MATERIALS CO LTD

Inventor: CHEN GUANGLIN

Prio:

Appl.No: CN201110456059

IPC: D04H 3/02

CN 102560903 B 说明书附图 1/2页



图1

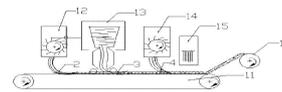


图2

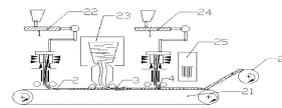


图3

9

Nonwoven fabric, manufacturing method thereof and filters formed by it

Publication: **CN 102575396 B 20150513**

Applicant: FAIRTECH INVEST LTD

Inventor: CRAIG GILBERT; NG YING-YUK

Prio: CN 20101014 2010077735, CN 20110228 2011071371

Appl.No: CN201180001717

IPC: D04H 1/542

CN 102575396 B 说明书附图 1/2页

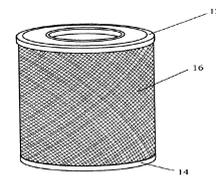


图1

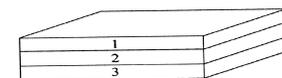


图2

17

Large aluminum silicate fiber needled blanket production system with thread throwing machine

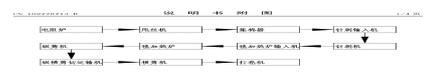
Publication: **CN 102776713 B 20150520**

Applicant: HUATIAN ENG & TECH CORP MCC

Inventor: ZHANG YI

Prio:

Appl.No: CN201210295159



11

IPC: D04H 3/105

Manufacturing technology for composite elastic textiles and manufacturing equipment thereof

Publication: **CN 102787451 B 20150513**

Applicant: HANGZHOU FEELHOM DOWN PRODUCTS CO LTD

Inventor: QIU ZHU; ZHANG JUNHUA; ZHANG LIPING

Prio:

Appl.No: CN201210270327

IPC: D04H 13/00

CN 102787451 B 说明书附图 1/3页

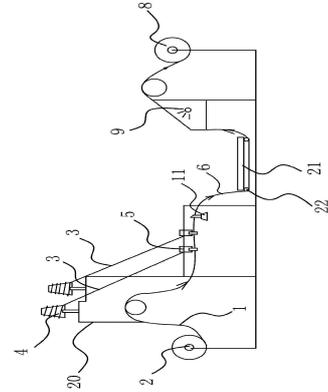


图1

7

Epoxy resin nanometer fiber felt and preparation method thereof

Publication: **CN 102808286 B 20150520**

Applicant: UNIV SHANGHAI SCIENCE & TECH

Inventor: LI YING; LIAO YAOZU; QIAN WEI; WANG XIA; YU DENGQUANG; ZHANG WENJING

Prio:

Appl.No: CN201210269581

IPC: D04H 1/4382

CN 102808286 B 说明书附图 1/3页

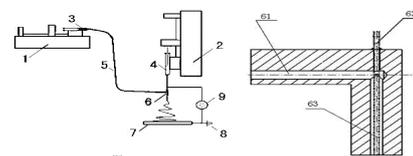


图1

图2

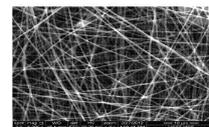


图3

10

Production method of active carbon three-component melt-blown non-woven fabric

Publication: **CN 102808288 B 20150520**

Applicant: SHENZHEN CHINA TEXTILE FILTER MATERIAL NON WOVEN FABRICS CO LTD

Inventor: QU YAOHUA

Prio:



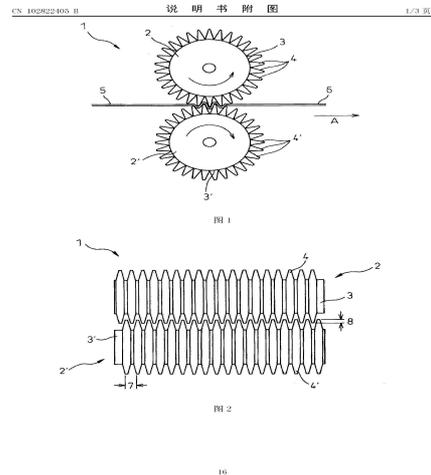
11

Appl.No: CN201210281674
IPC: D04H 1/435

Method for easily manufacturing non-woven fabric having unevenness, and method for easily processing non-woven fabric

Publication: **CN 102822405 B 20150520**

Applicant: UNI CHARM CORP
Inventor: MITSUNO SATOSHI
Prio: JP 20100416 2010095235, JP 20110413
2011059668
Appl.No: CN201180016363
IPC: D04H 1/50

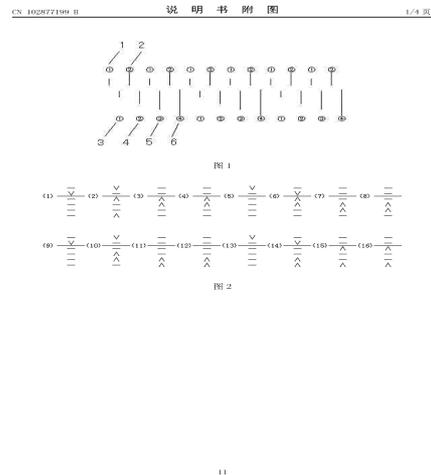


Hygroscopic and sweat releasing knitted fabric with shape memory function and processing method thereof

Publication: **CN 102877199 B 20150513**

Applicant: SHANGHAI JIALE CO LTD
Inventor: DANG GAOFENG; GUO RENZHONG; LU
YONGFANG; YANG CHUANYING; YANG
JIANGUO; ZHAN YONGBAO; ZHAO
QIAOHONG; ZHOU DEREN

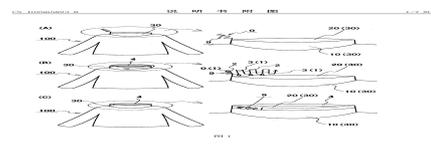
Prio:
Appl.No: CN201210260369
IPC: D04B 1/12



Knitting method for tubular knitted fabric, and tubular knitted fabric

Publication: **CN 102965823 B 20150513**

Applicant: SHIMA SEIKI MFG
Inventor: UEMICHI KAZUYA
Prio: JP 20110301 2011044348



Appl.No: CN201210052102
IPC: D04B 1/22

Stitch knitting non-weaving cloth for electrical tape base cloth and production method thereof

Publication: **CN 102965852 B 20150520**

Applicant: FUJIAN XINHUA CO LTD; GERFALCON
NONWOVEN IND FUJIAN CO LTD

Inventor: TIAN YUSHENG; WANG BAORONG; WANG
SHANYING; WU DUAN

Prio:
Appl.No: CN201210480514
IPC: D04H 13/00

CN 102965852 B 说明书附图 1/1页



图 1

10

Knitting tool holder

Publication: **CN 102995281 B 20150520**

Applicant: MAYER TEXTILMASCHF

Inventor: MISTA KRESIMIR

Prio: EP 20110916 11007549

Appl.No: CN201110429311

IPC: D04B 27/06

CN 102995281 B 说明书附图 1/3页

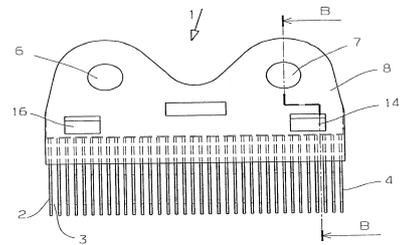


图 1

7

Processing method of multifunctional cotton like shirt fabric

Publication: **CN 103015019 B 20150527**

Applicant: YANGZHOU JIYUAN TEXTILE CO LTD

Inventor: XUE QIQUAN

Prio:

Appl.No: CN201210486239

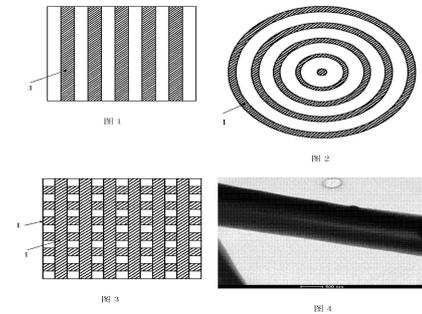
IPC: D04B 1/14

Mosaic-type nano film

Publication: **CN 103015036 B 20150506**

Applicant: UNIV SOUTHEAST
Inventor: CHEN YULU; NI HENMEI; WU MIN; ZHANG HUI
Prio:
Appl.No: CN201210578743
IPC: D04H 1/4382

CN 103015036 B 说明书附图 1/2页



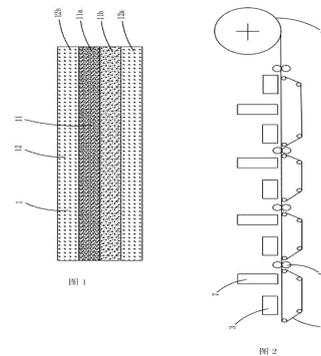
7

Envelope type wood pulp non-woven fabric and production process thereof

Publication: **CN 103074740 B 20150520**

Applicant: NINGBO QIXING NONWOVEN CLOTH CO LTD
Inventor: XIE DAOXUN; YING NADI
Prio:
Appl.No: CN201310044666
IPC: D04H 5/00

CN 103074740 B 说明书附图 1/2页



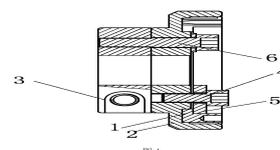
7

Traction aluminum wheel device

Publication: **CN 103088543 B 20150513**

Applicant: GUANGZHOU FEIHONG ELECTROMACHINERY
SCIENCE AND TECH CO LTD
Inventor: HUANG SIPING
Prio:
Appl.No: CN201310065546

CN 103088543 B 说明书附图 1/2页



7

IPC: D04B 27/26

Glass fiber blanket and producing method thereof

Publication: **CN 103103695 B 20150520**

Applicant: CHENGDU HANJIANG NEW BUILDING MATERIAL CO LTD

Inventor: CHEN ZHAOFENG; CHEN ZHOU; GU CHUNSHENG; JIANG DAICAI; LI ZHENWEI; QIN YUBO; WU HUIGUO; ZHANG HUIQIN

Prio:

Appl.No: CN201310011058

IPC: D04H 1/4218

Method for preparing collagen/lactic acid-caprolactone copolymer composite fiber bracket

Publication: **CN 103147229 B 20150513**

Applicant: NAT UNIV DONG HWA

Inventor: MO XIUMEI; WU JINGLEI

Prio:

Appl.No: CN201310098520

IPC: D04H 1/4382

CN 103147229 B 说明书附图 1/2页

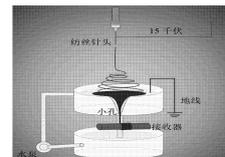


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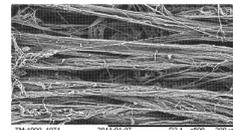


图 2

6

Eccentric cotton kneading machine

Publication: **CN 103161027 B 20150506**

Applicant: SUZHOU AORAN COMMODITY CO LTD

Inventor: PING HUA

Prio:

Appl.No: CN201310099459

IPC: D04H 1/02

CN 103161027 B 说明书附图 1/2页

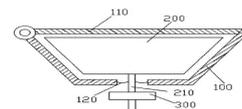


图 1

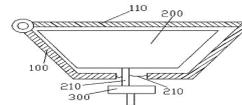


图 2

6

Purified cotton knitted fabric having soft hemp effect and manufacturing method thereof

Publication: [CN 103215737 B 20150520](#)

Applicant: GUANGZHOU TEXTILES & GARMENTS RES INST CO LTD

Inventor: WU SUISHENG; YANG LIU

Prio:

Appl.No: CN201310151904

IPC: D04B 1/14

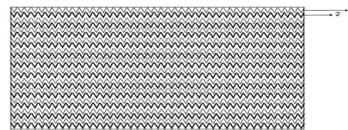


图 1



图 2

Functional garment

Publication: [CN 103243472 B 20150520](#)

Applicant: HONG KONG RES INST OF TEXTILES AND APPAREL LTD

Inventor: FAN JINTU; SUN CHAO

Prio:

Appl.No: CN201210032139

IPC: D04B 21/06

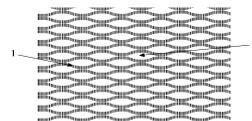


图 1

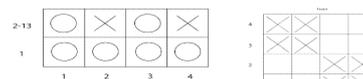


图 2



图 3

Stitch-size controlled knit product

Publication: [CN 103255559 B 20150513](#)

Applicant: OKAMOTO CORP

Inventor: FUKUI TAKAO

Prio: JP 20120215 2012031155

Appl.No: CN201310047774

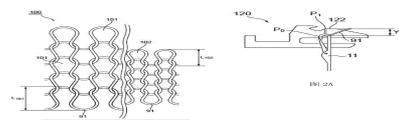


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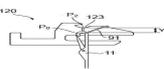


图 2

IPC: D04B 1/26

Warp-knitting elastic suede textile

Publication: **CN 103255570 B 20150513**

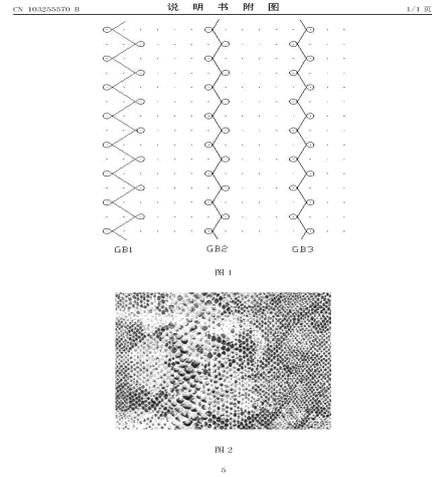
Applicant: JIANGSU JUJIE MICROFIBERS TEXTILE GROUP
CO LTD

Inventor: ZHONG BAIJIAN

Prio:

Appl.No: CN201310197471

IPC: D04B 21/18



Production technology of medical stone fiber seamless knitted underwear with health-care function

Publication: **CN 103361872 B 20150527**

Applicant: UNIV XI AN POLYTECHNIC; ZHEJIANG
FASHIONING KNITTING CLOTHING CO LTD

Inventor: GUO MENG MENG; HUANG CHANGLU; MENG
JIAGUANG; TAN YANJUN; WANG GUOBAO;
XUE TAO

Prio:

Appl.No: CN201310178547

IPC: D04B 1/24

Auxiliary needle plate opening mechanism in flat knitting machine

Publication: **CN 103437052 B 20150520**

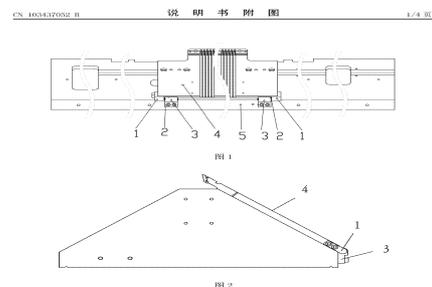
Applicant: NINGBO CIXING CO LTD

Inventor: LUO ZAIJIE; SUN PINGFAN

Prio:

Appl.No: CN201310405891

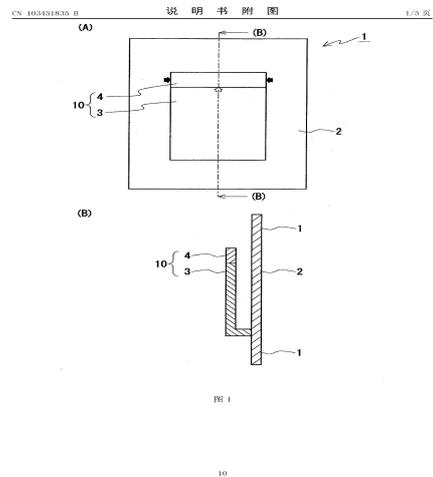
IPC: D04B 15/10



Knitting method of knitted fabric

Publication: **CN 103451835 B 20150513**

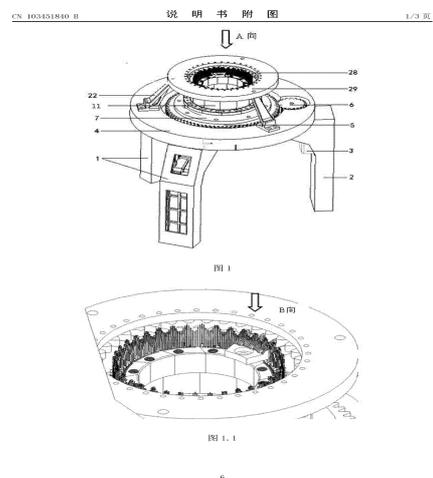
Applicant: SHIMA SEIKI MFG
 Inventor: UEMICHI KAZUYA
 Prio: JP 20120601 2012126451
 Appl.No: CN201310214455
 IPC: D04B 1/00



High-speed magnetic suspension type driving Jacquard knitting needle circular weft knitting machine

Publication: **CN 103451840 B 20150506**

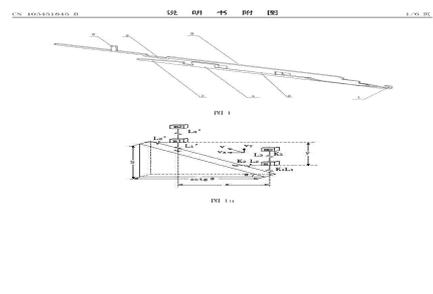
Applicant: UNIV WUHAN TEXTILE
 Inventor: LI XU; WANG YI; WU XIAOGUANG; ZHANG CHENGJUN; ZHANG CHI; ZHU LI
 Prio:
 Appl.No: CN201310385963
 IPC: D04B 9/00



Completely-forming computerized flat knitter compound needle

Publication: **CN 103451845 B 20150520**

Applicant: SHAOXING DAWEI KNITTING MACHINERY CO LTD
 Inventor: CHENG ZHIJIANG; FANG YUAN; YU FENG; YU YUNQUAN; ZHANG XINJUN; ZHAO SHUCHAO
 Prio:
 Appl.No: CN201310346337



IPC: D04B 35/06

Method for knitting super-elastic randomly-deformable seamless knitted underwear

Publication: **CN 103469459 B 20150527**

Applicant: ZHEJIANG QIAOER TINGTING GARMENT CO LTD

Inventor: LIANG JIAJUN; LYU XIAOHUI; WU QINFENG

Prio:

Appl.No: CN201310388938

IPC: D04B 1/24

CN 103469459 B 说明书附图 1/1页

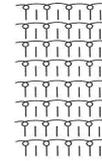


图 1

7

Carrier cloth transfer system for weft yarns of carbon fiber multi-axial warp knitting machine

Publication: **CN 103485064 B 20150513**

Applicant: CHANGZHOU DIBA TEXTILE MACHINERY FACTORY

Inventor: JIANG GUOZHONG; TAN KUNLUN

Prio:

Appl.No: CN201310461003

IPC: D04B 27/00

CN 103485064 B 说明书附图 1/1页

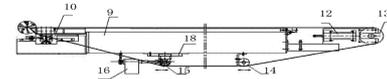


图 1

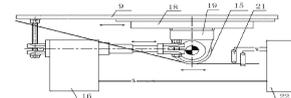


图 2

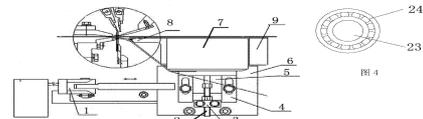


图 3

7

Cross yarn looped pile structure knitted fabric and processing method thereof

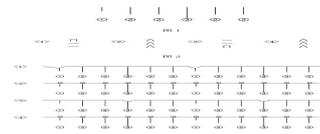
Publication: **CN 103510264 B 20150520**

Applicant: SHANGHAI JIALE CO LTD

Inventor: CHEN LIANG; DAI XIAOLONG; GAO QINGFENG; SHEN JIANLIN; YANG JIANGUO

Prio:

CN 103510264 B 说明书附图 1/1页



7

Appl.No: CN201210216900
IPC: D04B 1/04

Method for weaving warp knitting seamless bottomless pantyhose

Publication: **CN 103572494 B 20150506**

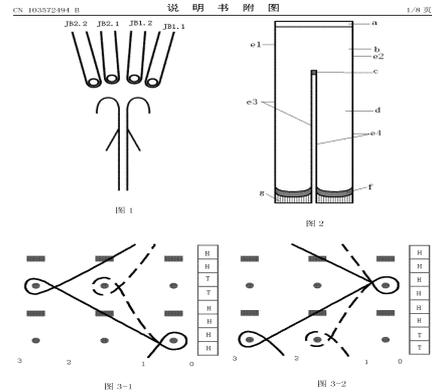
Applicant: UNIV JIANGNAN; YIXING HUAYI KNITTING CO LTD

Inventor: CHU YUNMING; CONG HONGLIAN; DONG ZHIJIA; JIANG GAOMING; WU ZHIMING; ZHANG AIJUN; ZHANG YANTING

Prio:

Appl.No: CN201310552249

IPC: D04B 21/20



11

Piezoceramic needle selection device guided out of grounding electrodes of piezoceramic driving sheets

Publication: **CN 103590182 B 20150520**

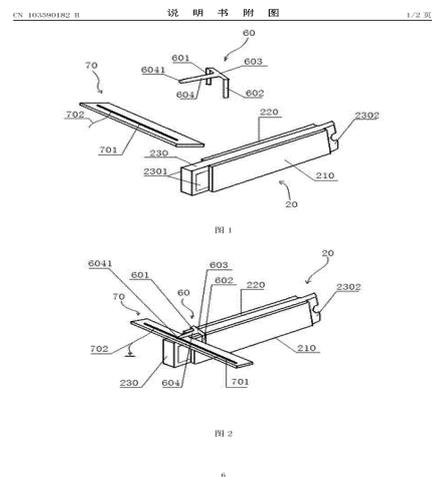
Applicant: RUI GUOLIN; WANG YIJUN

Inventor: RUI GUOLIN; WANG YIJUN

Prio:

Appl.No: CN201310575973

IPC: D04B 15/66



6

Knotted fishing net machine pore plate moving device

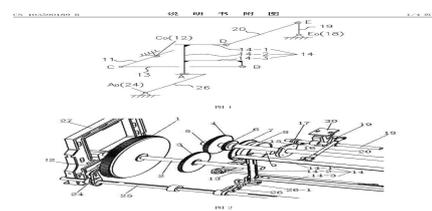
Publication: **CN 103590189 B 20150520**

Applicant: HAIAN TEXTILE MACHINERY CO LTD

Inventor: CAO QINGLIN; CUI RONG; XIA WEIDONG

Prio:

Appl.No: CN201310581962



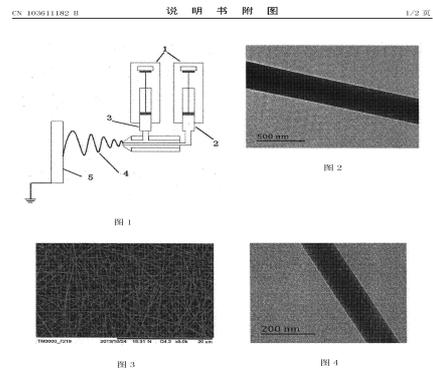
IPC: D04G 1/02

Preparation method of core-shell structure superfine fiber carrier material for medical dressing

Publication: **CN 103611182 B 20150513**

Applicant: UNIV DONGHUA
Inventor: CHENG FENG; GAO JING; SUN LIJUN; WANG LU; WANG XIAOLI

Prio:
Appl.No: CN201310670565
IPC: D04H 1/728

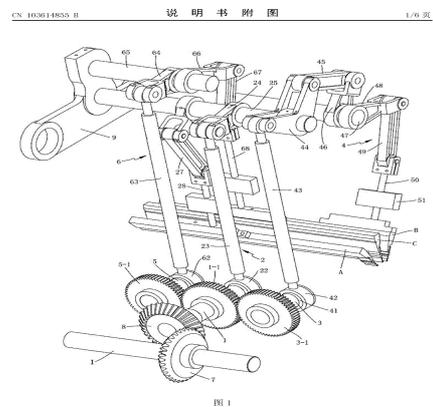


Guide bar yarn overlapping movement mechanisms of warp knitting machine

Publication: **CN 103614855 B 20150513**

Applicant: CHANGZHOU RUNYUAN WARP KNITTING MACHINERY CO LTD
Inventor: HUANG JUNHAO; WANG ZHANHONG; WEI HAILONG; XIAO YE; ZHAO JIAYANG; ZHOU JIN

Prio:
Appl.No: CN201310614522
IPC: D04B 27/24

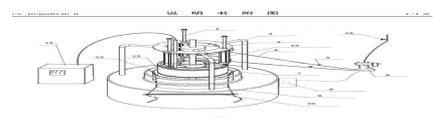


Synchronous setting circular knitting machine and method for producing knitted fabric containing thermoplastic fibers through same

Publication: **CN 103668746 B 20150527**

Applicant: QINGDAO JIFA GROUP CO LTD
Inventor: WEN YUANQING; WU YUQIN; XIE ZHENXIANG; YANG WEIDONG; YU XICHAO; ZOU BIN

Prio:



Appl.No: CN201310644804
IPC: D04B 15/00

Yarn carrier moving device for circular knitting machine

Publication: **CN 103668755 B 20150513**
Applicant: NINGBO YUREN NUMERICAL CONTROL TECHNOLOGY CO LTD
Inventor: SHEN XIYA; SUN PINGFAN; XU WEIDONG
Prio:
Appl.No: CN201310727112
IPC: D04B 15/58

CN 103668755 B 说明书附图 1/1页

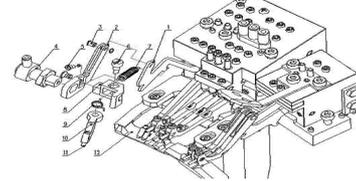


图1

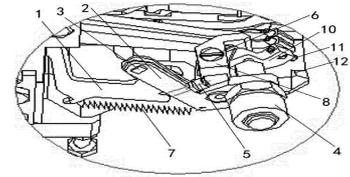


图2

5

Double-face jacquard knitting machine

Publication: **CN 103696114 B 20150506**
Applicant: ZHOU ZHONGGANG
Inventor: ZHOU ZHONGGANG
Prio:
Appl.No: CN201310755334
IPC: D04B 15/68

CN 103696114 B 说明书附图 1/2页

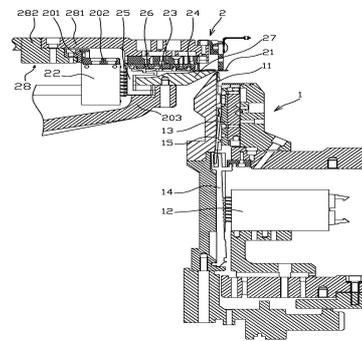


图1

7

Warp knitting machine creel

Publication: **CN 103696117 B 20150513**
Applicant: JIANGSU CTC TECHNICAL FABRICS CO LTD
Inventor: CHEN MEICHENG; GUO PINYI; LIAO JIAHUI; XIE LANZHEN
Prio:
Appl.No: CN201310659305

CN 103696117 B 说明书附图 1/2页

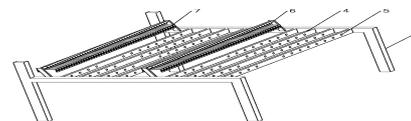


图1



图2

6

IPC: D04B 27/00

Combined thread guide for interweaving

Publication: [CN 103741359 B 20150527](#)

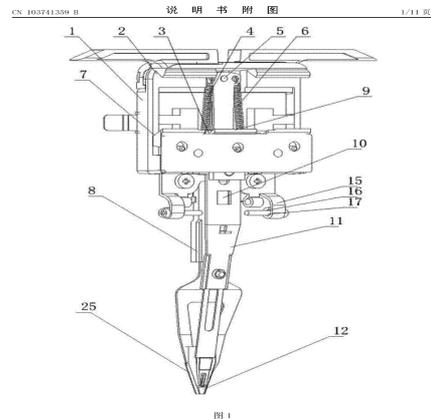
Applicant: RUIAN WEIKE FLAT KNITTING MACHINES
PARTS CO LTD

Inventor: LIN LIANGJIN

Prio:

Appl.No: CN201310699664

IPC: D04B 15/56



7

Segmented push rod of double needle bar warp knitting machine

Publication: [CN 103882618 B 20150506](#)

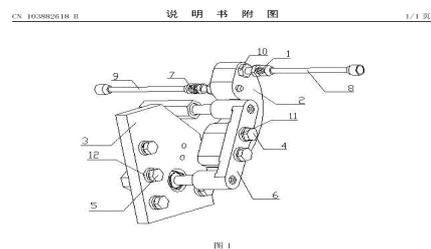
Applicant: MAYER KARL CHINA LTD

Inventor: CHEN LIN; LIN TAILAI

Prio:

Appl.No: CN201410137547

IPC: D04B 27/26



5

Non-woven fabric and manufacturing process therefor

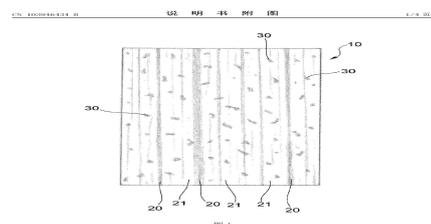
Publication: [CN 103946434 B 20150527](#)

Applicant: KAO CORP

Inventor: MASUKI TETSUYA; SAKA WATARU

Prio: JP 20111226 2011283121, JP 20121217
2012082651, JP 20121205 2012265928

Appl.No: CN201280056980



11

IPC: D04H 1/541

Multi-axial warp knitting machine

Publication: **CN 103981630 B 20150520**

Applicant: MAYER KARL CHINA LTD

Inventor: WU YUE

Prio:

Appl.No: CN201410248618

IPC: D04B 27/34

CN 103981630 B 说明书附图 1/3页

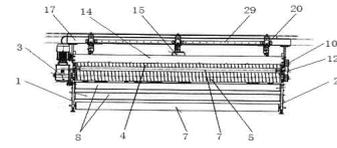


图 1

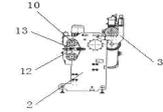


图 2