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(73) Octrooihouder(s):
Formosa Saint Jose Corp.
te TAIPEI, Taiwan (TW).

(72) Uitvinder(s):
Ming-Shun Yang te Taipei (TW).

(74) Gemachtigde:
Drs. O. Griebling te Tilburg.

(54) **Structure of touch-fastening anti-skidding material.**

(57) A touch-fastening anti-skidding material includes a woven foundation layer and a plurality of synthetic yarns that is secured together by being collectively woven in the foundation layer. The foundation layer is formed by dual yarn weaving of pliable base yarns and synthetic yarns. The synthetic yarns are woven in U-shaped loops and the base yarns are woven between adjacent strands of the woven synthetic yarns to make a large area cloth. The cloth may be in a planar form without hollow opening sections or it includes open sections to facilitate air permeability. The loops of the synthetic yarns have legs extending beyond the foundation layer by a predetermined length and the synthetic yarns show rigidity strength, whereby a flexible, resilient, light-weighted, and low-cost touch-fastening anti-skidding material is formed.

Title: Structure of touch-fastening anti-skidding material

(a) Technical Field of the Invention

The present invention generally relates to a novel design of structure of touch-fastening anti-skidding material, which has the features of being fit for mass production and manufacture of large width surface area, flexibility, resiliency, and light weight, and also offers the advantages of high air permeability and low manufacturing costs, and is fit for combination with other materials and suitable for being bonded to various felts/rugs, flannelette, loop cloth (terrycloth) to realize touch-fastening and anti-skidding.

(b) Description of the Prior Art

The commonly known touch-fastener straps or hook-and-loop (Velcro) straps have the features of touch-fastening and anti-skidding. The known hook-and-loop strap is often composed of a male hook band and a female loop band. The male hook band has a surface forming a felt-like face on which a plurality of projecting hooks that has ends forming hooks is uniformly distributed. The female loop band has a surface forming a velvet-like face on which curled and entangling yarns are uniformly distributed. When the male and female bands are put together to have the felt-like face and the velvet-like faces thereof touching each other, the hooks of the felt-like face largely engage the curled and entangling yarns so as to fix the bands together. The known structure of the touch-fastener strap is effective in fixing articles to be fastened together, but the conventional touch-fastener strap suffers high manufacturing costs and difficulty in making large width products, and is only fit for continuous manufacture of small-surface-area elongate straps, making the production

performance very poor. Further, the conventional touch-fastener strap is generally not pliable, making it difficult to bond to articles or materials showing a three-dimensional configuration. To overcome such problems, the present invention aims to provide a unique touch-fastening material, which can be manufactured by weaving synthetic fibers/yarns of different characteristics or synthetic fibers/yarns of different diameter sizes in order to suit the needs of different applications, wherein the length of the synthetic fibers/yarns used can be set according to the processing needed. The yarns are woven to form a foundation layer that can be a net cloth having hollow opening sections (see FIG. 1 of the attached drawings) or a net cloth having no hollow opening sections (see FIG. 7). When the net cloth so woven having hollow opening sections, the hollow opening sections can assume various shapes, such as circle, honeycomb, quadrangle, and other geometric shapes. The formation of the hollow opening sections provides the anti-skidding material with enhanced resiliency for stretchability and deformation in both length and width and improved air permeability. This also offers an advantageous feature of enhanced shapeability for forming a three-dimensional configuration for surface-bonding to other materials that may show three-dimensional configurations. Since the synthetic fibers/yarns are woven in the foundation layer, all the synthetic yarns are tightly secured together without undesired separation off and thus additional adhesive layer applied to the bottom thereof for bonding purposes is not necessary. This makes the material of the present invention advantageous in view of manufacturing costs. The touch-fastening material of the present invention may also be subjected to additional processing by passing through a tunnel-shape oven, in which ends of the fibers/yarns are melt and form hooks with rounded end. The touch-fastening material of the present invention provides excellent

resistance against skidding and thus offers extremely wide applications for anti-skidding material in various industries. Thus, the present invention aims to provide a mass-productive, light-weighted, air-permeable, resiliently expandable, and structure simplified anti-skidding material that provides effective skidding resistance for various material, including felts/rugs, flannelette, and loop cloth (terrycloth).

SUMMARY OF THE INVENTION

The primary objective of the present invention is to provide a structure of touch-fastening material, which provides an anti-skidding formed by weaving, whereby the anti-skidding material is flexible and resilient, and which is formed by weaving two types of fibers/yarns of different materials and synthetic fibers/yarns together so that a woven foundation layer is formed and comprises a great number of synthetic fibers/yarns extending therein and the anti-skidding material can be manufactured in a mass production manner with excellent features of light-weight, air permeability, resilience, and processability.

Another objective of the present invention is to provide an anti-skidding material, which possesses excellent stretchability and flexibility that offers excellent characteristics of being easily applied to a three-dimensional surface so that the anti-skidding material can be easily shaped for forming an excellent bonding surface for three-dimensional configuration.

A further objective of the present invention is to provide a touch-fastening anti-skidding material that is applicable to felts/rugs, flannelette, and loop cloth (terrycloth) for anti-skidding purposes.

To achieve the above objectives, the present invention provides a touch-fastening anti-skidding material, which comprises a woven foundation layer and a plurality of

synthetic fibers/yarns that is collectively woven in the foundation layer and secured together. The woven foundation layer is formed by collectively weaving two strands of pliable base yarns and synthetic yarns and allowing the synthetic yarns to extend beyond the woven foundation layer by a given distance. The synthetic yarns possess predetermined rigidity strength, which makes the foundation layer an underside cloth that is flexible, resilient, and light-weighted, whereby when bonded to felts/rugs, flannelette, and loop cloth (terrycloth), the anti-skidding material of the present invention provides excellent resistance against skidding.

The foregoing objectives and summary provide only a brief introduction to the present invention. To fully appreciate these and other objects of the present invention as well as the invention itself, all of which will become apparent to those skilled in the art, the following detailed description of the invention and the claims should be read in conjunction with the accompanying drawings. Throughout the specification and drawings identical reference numerals refer to identical or similar parts.

Many other advantages and features of the present invention will become manifest to those versed in the art upon making reference to the detailed description and the accompanying sheets of drawings in which a preferred structural embodiment incorporating the principles of the present invention is shown by way of illustrative example.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view showing a touch-fastening anti-skidding material in accordance with the present invention.

FIG. 1A is an enlarged view of a portion of the touch-fastening anti-skidding material of the present invention.

FIG. 2 is a schematic view showing a foundation layer and synthetic yarns woven together in accordance with the present invention.

FIG. 3 is a top plan view showing a woven arrangement of a base yarn and a synthetic yarn in accordance with the present invention.

FIG. 4 is a top plan view showing another woven arrangement of a base yarn and a synthetic yarn in accordance with the present invention.

FIG. 5 is a partial cross-sectional view of the touch-fastening anti-skidding material of the present invention.

FIG. 6 is a schematic view illustrating weaving of a foundation layer of the present invention that possesses hollow opening sections.

FIG. 7 is a schematic view illustrating a completely woven foundation layer of the present invention that possesses no hollow opening section.

FIG. 8 is a schematic view showing legs of synthetic yarns of the touch-fastening anti-skidding material that have been subjected to heating irradiation and thus fusing.

FIG. 9 is a schematic view showing legs of synthetic yarns of the touch-fastening anti-skidding material that have been subjected to heating and deformation.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The following descriptions are exemplary embodiments only, and are not intended to limit the scope, applicability or configuration of the invention in any way. Rather, the following description provides a convenient illustration for implementing exemplary embodiments of the invention. Various changes to the described embodiments may be made in the function and arrangement of the elements described without departing from the scope of the invention as set forth in the appended claims.

Reference is now made to FIGS. 1, 1A, and 2, in which FIG. 1 is a perspective view of a touch-fastening anti-skidding material in accordance with the present invention, FIG. 1A is an enlarged view of a portion of the touch-fastening anti-skidding material, and FIG. 2 is a schematic view showing a foundation layer and synthetic yarns woven together in accordance with the present invention. As shown, the touch-fastening anti-skidding material in accordance with the present invention, generally designated at 10, comprises a plurality of synthetic yarns 20a, 20b and pliable base yarns 30a, 30b.

Also referring to FIGS. 3-5, each synthetic yarn 20a, 20b is bent to form a U-shaped configuration, having a loop 21 (see FIG. 3) and two outward-extending short legs 22 (see FIG. 3). Each rear loop 21 loops around each front loop 21 so that the loops 21 are linked together with the short legs 22 that are located at ends of the loops 21 and of a predetermined length extending outside a foundation layer 40. The synthetic yarns 20a, 20b are accompanied by the pliable base yarns 30a, 30b in an alternate manner in the front-rear direction (see FIGS. 3 and 4) so that the first synthetic yarns 20a is combined with the base yarn 30a, while the second synthetic yarn 20a that is linked to the first synthetic yarn 20a is combined with the base yarn 30b. Similarly, the first synthetic yarn 20b is combined with the base yarn 30b, while the second synthetic yarn 20b that is linked to the first synthetic yarn 20b is combined with the base yarn 30a. In this way, two strands are collectively woven in a dual yarn manner to form a woven strand A (as shown in FIG. 1A). The synthetic yarns 20a, 20b and the base yarns 30a, 30b are collectively woven on a common horizontal plane and form a foundation layer 40. The base yarns 30a, 30b that are arranged to parallel accompany the synthetic yarns 20a, 20b are arranged in such a way that the base yarns 30a, 30b, after co-bent with the synthetic yarn to form the loops 21, are

allowed to individually and transversely extend to and subsequently parallel accompany the synthetic yarn 20a, 20b of an adjacent strand (see FIGS. 3 and 4). The synthetic yarns 20a, 20b can be made of nylon plastics, or polyesters, or polypropylene (PP) plastics, or polyethylene (PE) plastics.

As shown in FIGS. 3-6, the base yarn 30a, which is arranged to co-extend with the synthetic yarn 20a form a loop, is allowed to extend transversely to the synthetic yarn 20b of the adjacent strand for subsequently co-extending with the synthetic yarn 20b for dual yarn weaving, so that the synthetic yarns 20a, 20b and the base yarns 30a, 30b are woven in a common horizontal plane to form the foundation layer 40. The foundation layer fabric comprises loops 21 of the synthetic yarns 20a, 20b linked to each other in the front-rear direction, so that the rear one of the loops is set to loop around the front one of the loops and each of the linked loops 21 has ends that form short legs 22 of predetermined length extending outside the foundation layer 40. When the transversely extending base yarns are of great lengths, the lengths of the base yarns allows for formation of gaps X that define hollow openings, whereby the foundation layer 40 is provided with hollow opening sections, which can be of any desired shape, such as circle, honeycomb, quadrangle, and other geometric shapes. The presence of the hollow opening sections helps improving stretchability and deformability in the longitudinal direction and the transversely direction.

As shown in FIG. 7, the present invention provides a touch-fastening anti-skidding material 10a, which comprises a large area cloth formed by weaving of the foundation layer 40 in an expanded manner, wherein the base yarns 30a, 30b that are woven in the foundation layer to extend transversely in the planar surface of the cloth are arranged in a tightened manner so that no gaps X that form hollow openings are formed by excessive length of the base yarns 30a, 30b. And, in this

way, a planar touch-fastening anti-skidding material 10a is formed.

Further referring to FIGS. 8 and 9, a further feature of the present invention is provided, wherein the touch-fastening material of the present invention, after being formed by collectively weaving the synthetic yarns 20a, 20b and the base yarns 30a, 30b, is further processed by passing through a tunnel-type oven for heating, whereby free ends of the legs 22 of each synthetic yarn 20a, 20b are fused to form rounded ends 23 (see FIG. 8). Alternatively, the free ends of the legs of each synthetic yarn 20a, 20b is subjected to heating and compressed to form hooks 24 (see FIG. 9). The short legs 22 of synthetic yarns extending beyond the surface of cloth so formed by weaving are set to project outside the foundation layer and the distance or length of the legs 22 of the synthetic yarns 20a, 20b can be adjusted as desired, and the synthetic yarns shows rigidity strength.

Thus, the touch-fastening anti-skidding material in accordance with the present invention possesses advantages of light weight, high air permeability, and flexibility and is fit for mass production of large width products.

To summarize, the present invention provides a touch-fastening anti-skidding material that is structured by having synthetic yarns of short lengths woven together with the cloth that forms a foundation layer to provide the effect of anti-skidding when touching felts/rugs, flannelette, and loop cloth (terrycloth). Further, the synthetic yarns are tightly woven together so that the synthetic yarns do not drive the yarns/velvets that make the felts/rugs, flannelette, and loop cloth (terrycloth) out and thus damage the yarns/velvets when being separated. The present invention has excellent touch-fastening characteristics and better resistance against skidding.

While certain novel features of this invention have been shown and described and are pointed out in the annexed claim,

it is not intended to be limited to the details above, since it will be understood that various omissions, modifications, substitutions and changes in the forms and details of the device illustrated and in its operation can be made by those skilled in the art without departing in any way from the spirit of the present invention.

CONCLUSIES

1. Een drukbevestigings-antislipmateriaal omvattende een geweven funderingslaag en een veelvoud van synthetische draden dat tezamen is bevestigd door collectief in de funderingslaag geweven te zijn, met het kenmerk dat:
de geweven funderingslaag een veelvoud omvat van synthetische draden en buigbare basisdraden en elk van de synthetische draden begeleid wordt door een buigbare basisdraad zodat de synthetische draad en de basisdraad samen zijn geweven op een duale-draadmanier, waarbij de synthetische draden en de basisdraden geweven zijn op een gemeenschappelijk vlak om een funderingslaag te vormen met korte benen die gevormd worden door uiteinden van elk van de buiten de funderingslaag uitstekende synthetische draden, waarbij de synthetische draden stijfheidssterkte vertonen, waardoor een flexibel en lichtgewicht drukbevestigend antislipmateriaal is gevormd.

2. Het drukbevestigings-antislipmateriaal volgens conclusie 1, waarbij elk van de synthetische draden gebogen is om een U-vormige configuratie te vormen die een lus en twee naar buiten uitstekende benen omvat, waarbij een achterlus van de door de synthetische draden gevormde lussen is ingesteld om te lussen rondom een voorlus van de lussen, waarbij de basisdraden die de synthetische draden begeleiden om de lussen te vormen zich verder en transversaal uitstrekken naar een aangrenzende bundel synthetische draden om vervolgens de aangrenzende bundel synthetische draden te begeleiden.

3. Het drukbevestigings-antislipmateriaal volgens conclusie 1, waarbij de geweven funderingslaag een doek omvat die geen holle opening heeft.

4. Het drukbevestigings-antislipmateriaal volgens conclusie 1, waarbij de geweven funderingslaag een netvormig doek omvat dat secties met holle openingen heeft.

5. Het drukbevestigings-antislipmateriaal volgens conclusie 4, waarbij holle-openingsecties van het netvormige doek polygonaal zijn.

6. Het drukbevestigings-antislipmateriaal volgens conclusie 1, waarbij de synthetische draden gemaakt zijn van nylon-kunststoffen.

7. Het drukbevestigings-antislipmateriaal volgens conclusie 1, waarbij de synthetische draden gemaakt zijn van polyesters.

8. Het drukbevestigings-antislipmateriaal volgens conclusie 1, waarbij de synthetische draden gemaakt zijn van polypropyleenkunststoffen.

9. Het drukbevestigings-antislipmateriaal volgens conclusie 1, waarbij de synthetische draden gemaakt zijn van polyethyleenkunststoffen.

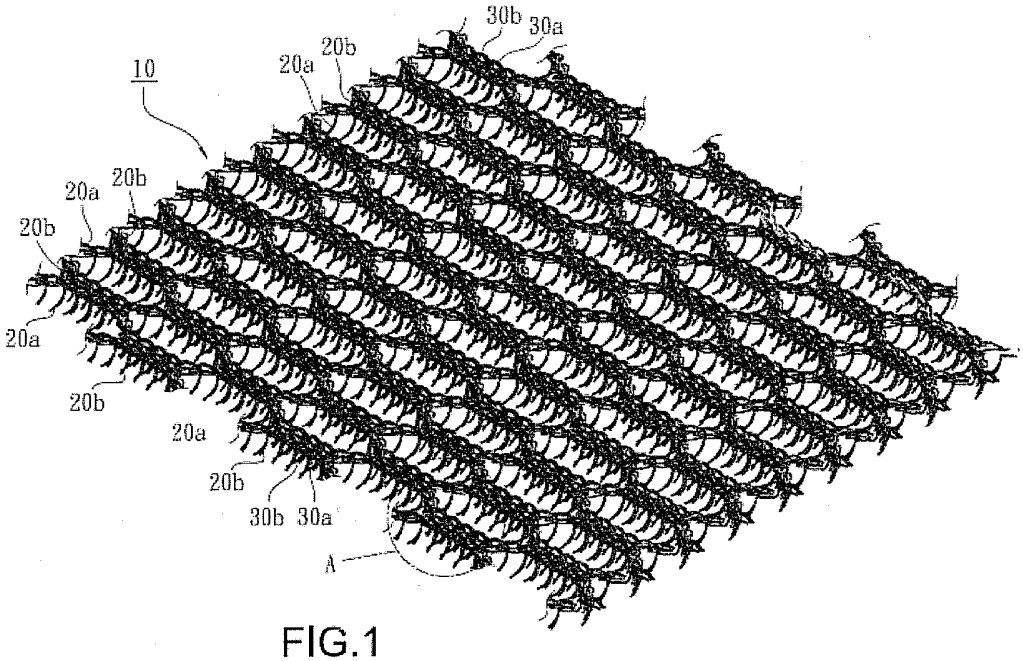

FIG.1

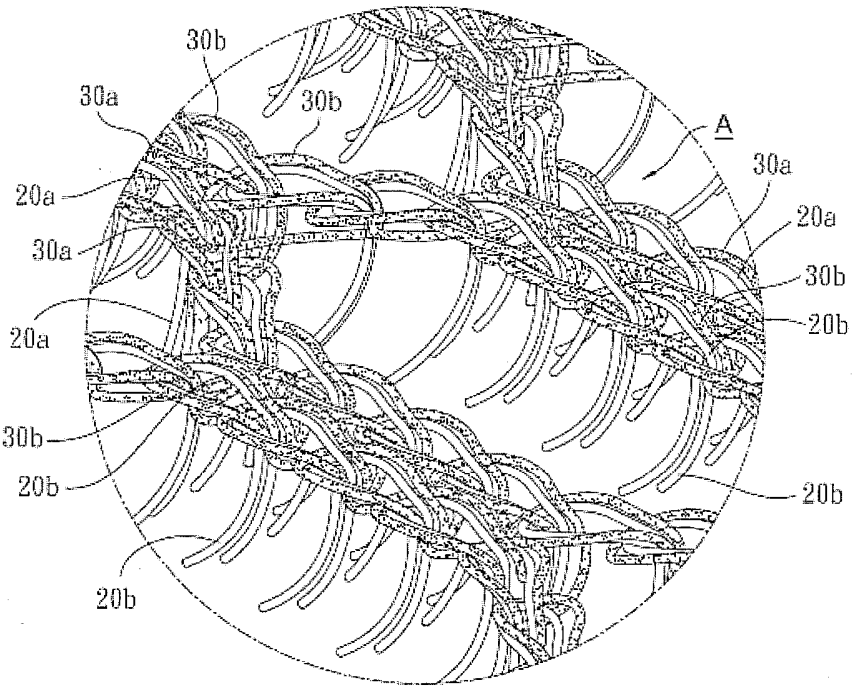

FIG.1A

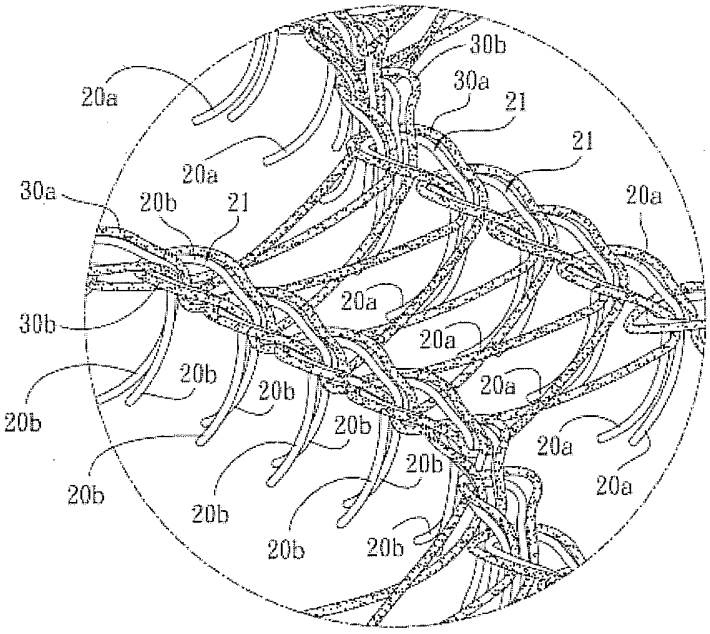
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FIG.2

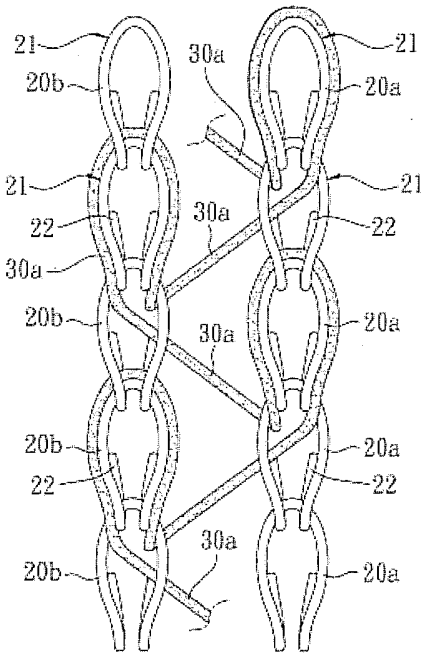
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FIG.3

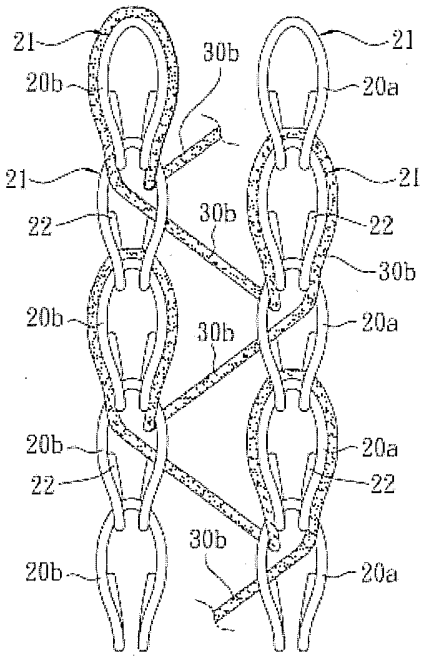
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FIG.4

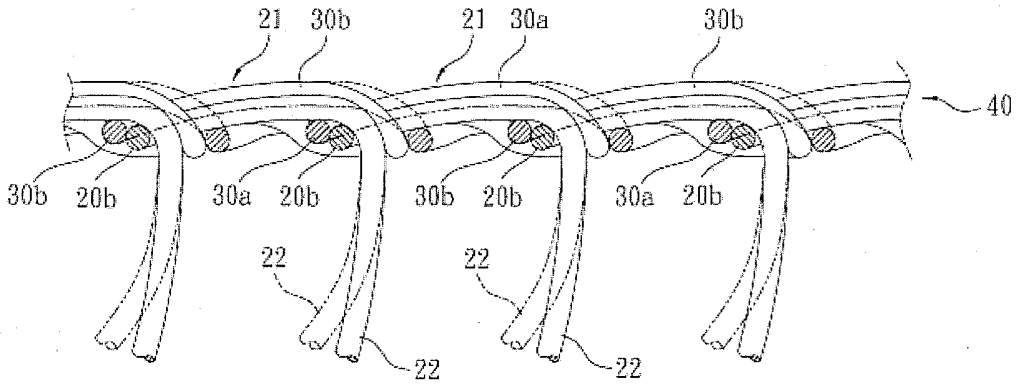

FIG.5

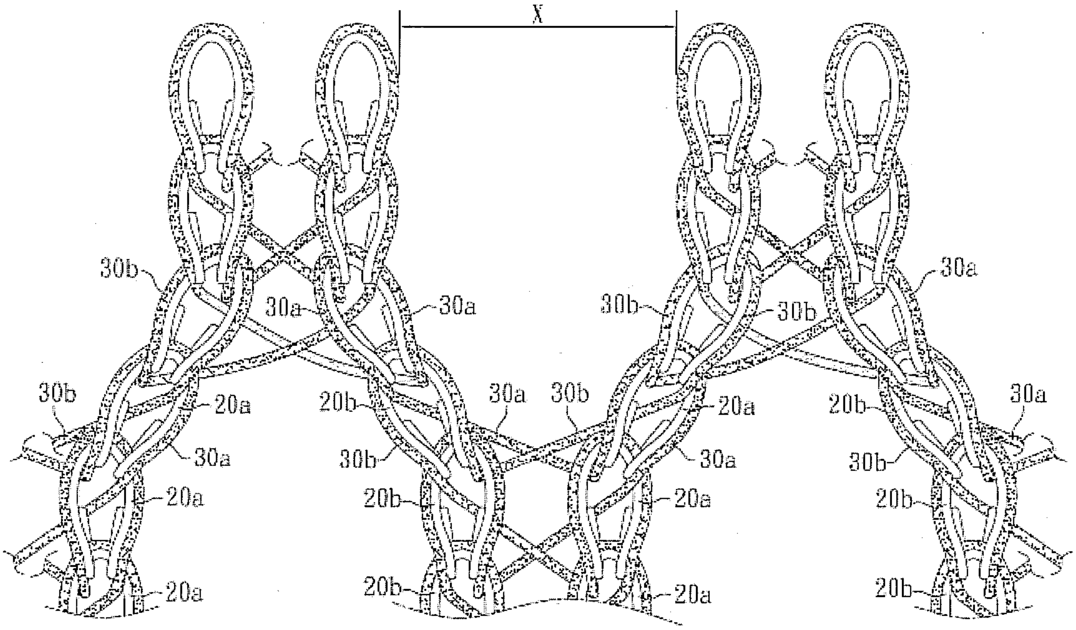
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FIG.6

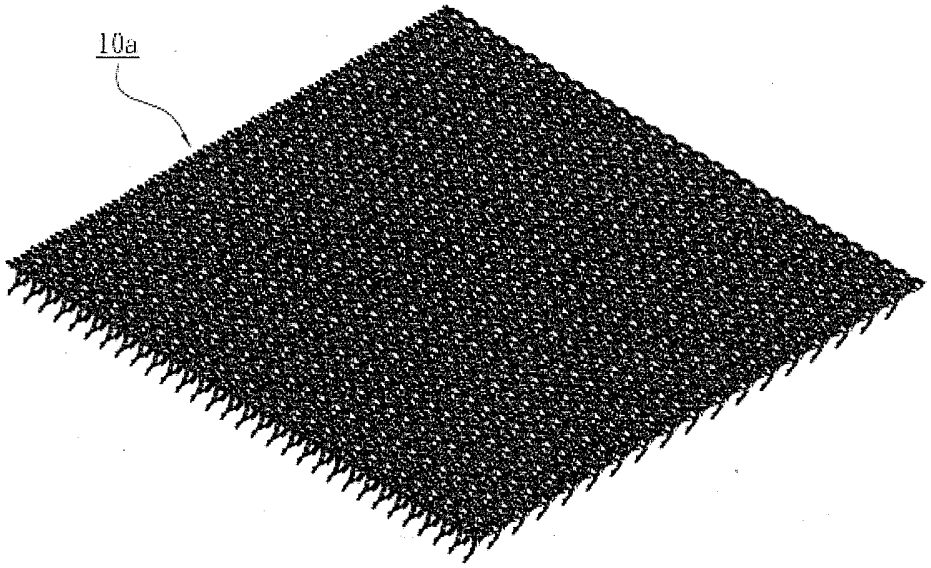

FIG.7

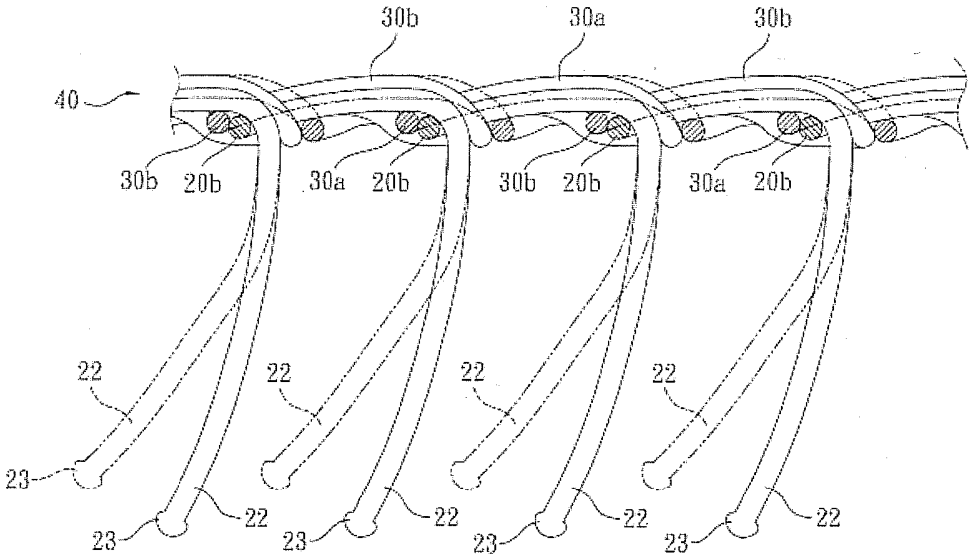
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FIG.8

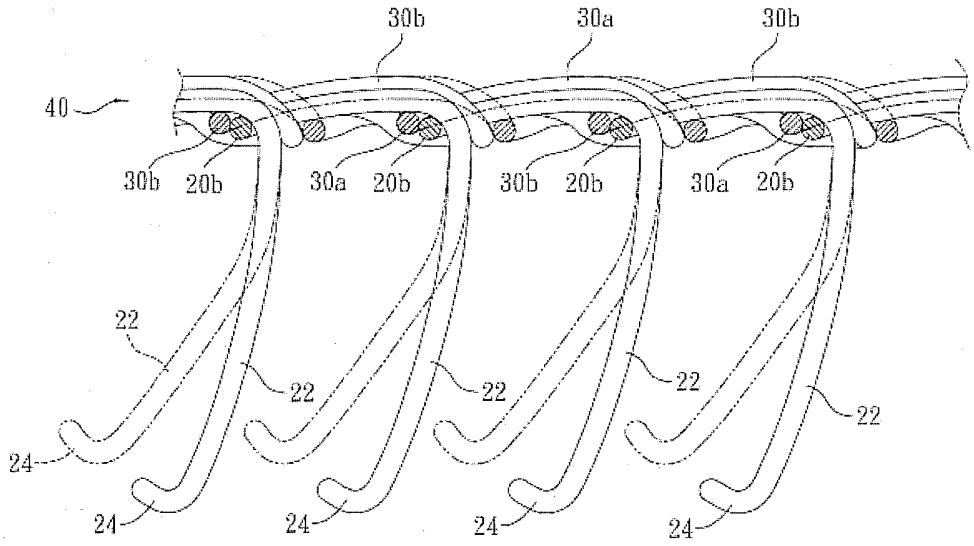
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FIG.9

OCTROOICENTRUM NEDERLAND

OCTROOIAANVRAAG NR.:
NO 137164
NL 1037664

ONDERZOEKSRAPPORT

BETREFFENDE HET RESULTAAT VAN HET ONDERZOEK NAAR DE STAND VAN DE TECHNIEK

RELEVANTE LITERATUUR

Categorie[1]	Literatuur met, voor zover nodig, aanduiding van speciaal van belang zijnde tekstgedeelten of figuren.	Van belang voor conclusie(s) nr:	Classificatie (IPC)
X	EP 1 698 245 A2 (YKK CORP [JP]) 6 september 2006 (2006-09-06) * alineas [0009] - [0012], [0 16], [0 18], [0 23], [0 34] - [0039]; conclusie 1; figuren 3,6,8 * -----	1-4	INV. D04B21/04 A44B18/00 ADD. D04B21/10
X	EP 0 276 890 A2 (AUSONIA SPA [IT]) 3 augustus 1988 (1988-08-03) * kolom 5, regel 17 - kolom 7, regel 24; conclusies 1, 6; figuren 1-5 * -----	1-3,6,8	
A	EP 0 589 395 A1 (YOSHIDA KOGYO KK [JP] YKK CORP [JP]) 30 maart 1994 (1994-03-30) * kolom 4, regels 14-40; figuren 8, 9 * -----	2	
A	EP 0 985 361 A1 (YKK CORP [JP]) 15 maart 2000 (2000-03-15) * kolom 5, regels 47-50, alinea 3-4; conclusie 2; figuren 2, 4, 6 * -----	1,6-9	

Onderzochte gebieden van de techniek
D04B A44B

Indien gewijzigde conclusies zijn ingediend, heeft dit rapport betrekking op de conclusies ingediend op:

Plaats van onderzoek:	Datum waarop het onderzoek werd voltooid:	Bevoegd ambtenaar:
München	28 juni 2011	Sterle, Dieter

[1] CATEGORIE VAN DE VERMELDE LITERATUUR

X: de conclusie wordt als niet nieuw of niet inventief beschouwd ten opzichte van deze literatuur
Y: de conclusie wordt als niet inventief beschouwd ten opzichte van de combinatie van deze literatuur met andere geciteerde literatuur van dezelfde categorie, waarbij de combinatie voor de vakman voor de hand liggend wordt geacht
A: niet tot de categorie X of Y behorende literatuur die de stand van de techniek beschrijft
O: niet-schriftelijke stand van de techniek
P: tussen de voorrangsdatum en de indieningsdatum gepubliceerde literatuur
T: na de indieningsdatum of de voorrangsdatum gepubliceerde literatuur die niet bezwarend is voor de octrooiaanvrage, maar wordt vermeld ter verheldering van de theorie of het principe dat ten grondslag ligt aan de uitvinding
E: eerdere octrooi(aanvrage), gepubliceerd op of na de indieningsdatum, waarin dezelfde uitvinding wordt beschreven
D: in de octrooiaanvrage vermeld
L: om andere redenen vermelde literatuur
&: lid van dezelfde octrooifamilie of overeenkomstige octrooipublicatie

EOB FORM 02.83 (P0414B)

AANHANGSEL BEHORENDE BIJ HET RAPPORT BETREFFENDE HET ONDERZOEK NAAR DE STAND VAN DE TECHNIEK, UITGEVOERD IN DE OCTROOIAANVRAGE NR.

NO 137164
NL 1037664

Het aanhangsel bevat een opgave van elders gepubliceerde octrooiaanvragen of octrooien (zogenaamde leden van dezelfde octrooifamilie), die overeenkomen met octrooischriften genoemd in het rapport.
De opgave is samengesteld aan de hand van gegevens uit het computerbestand van het Europees Octrooibureau per
De juistheid en volledigheid van deze opgave wordt noch door het Europees Octrooibureau, noch door het Bureau voor de Industriële eigendom gegarandeerd; de gegevens worden verstrekt voor informatiedoeleinden.

28-06-2011

In het rapport genoemd octrooigeschrift		Datum van publicatie	Overeenkomend(e) geschrift(en)		Datum van publicatie
EP 1698245	A2	06-09-2006	CN	1730761 A	08-02-2006
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			TW	463584 U	11-11-2001
			US	6565943 B1	20-05-2003

Algemene informatie over dit aanhangsel is gepubliceerd in de 'Official Journal' van het Europees Octrooibureau nr 12/82 blz 448 ev

OCTROOICENTRUM NEDERLAND

SCHRIFTELIJKE OPINIE

DOSSIER NUMMER	INDIENINGSDATUM	VOORRANGSDATUM	AANVRAAGNUMMER
NO137164	29.01.2010	22.10.2009	NL1037664

CLASSIFICATIE
INV. D04B21/04 A44B18/00 ADD. D04B21/10

AANVRAGER
Formosa Saint Jose Corp.

Deze schriftelijke opinie bevat een toelichting op de volgende onderdelen:

- ☒ Onderdeel I Basis van de schriftelijke opinie
- ☐ Onderdeel II Voorrang
- ☐ Onderdeel III Vaststelling nieuwheid, inventiviteit en industriële toepasbaarheid niet mogelijk
- ☐ Onderdeel IV De aanvraag heeft betrekking op meer dan één uitvinding
- ☒ Onderdeel V Gemotiveerde verklaring ten aanzien van nieuwheid, inventiviteit en industriële toepasbaarheid
- ☐ Onderdeel VI Andere geciteerde documenten
- ☒ Onderdeel VII Overige gebreken
- ☒ Onderdeel VIII Overige opmerkingen

DE BEVOEGDE AMBTENAAR
Sterle, Dieter

Aanvraag nr.:

SCHRIFTELIJKE OPINIE

NL1037664

Onderdeel I Basis van de Schriftelijke Opinie

1. Deze schriftelijke opinie is opgesteld op basis van de meest recente conclusies ingediend voor aanvang van het onderzoek.

2. Met betrekking tot **nucleotide en/of aminozuur sequenties** die genoemd worden in de aanvraag en relevant zijn voor de uitvinding zoals beschreven in de conclusies, is dit onderzoek gedaan op basis van:

   a. type materiaal:

   ☐ sequentie opsomming

   ☐ tabel met betrekking tot de sequentie lijst

   b. vorm van het materiaal:

   ☐ op papier

   ☐ in elektronische vorm

   c. moment van indiening/aanlevering:

   ☐ opgenomen in de aanvraag zoals ingediend

   ☐ samen met de aanvraag elektronisch ingediend

   ☐ later aangeleverd voor het onderzoek

3. ☐ In geval er meer dan één versie of kopie van een sequentie opsomming of tabel met betrekking op een sequentie is ingediend of aangeleverd, zijn de benodigde verklaringen ingediend dat de informatie in de latere of additionele kopieën identiek is aan de aanvraag zoals ingediend of niet meer informatie bevatten dan de aanvraag zoals oorspronkelijk werd ingediend.

4. Overige opmerkingen:

Aanvraag nr.:

SCHRIFTELIJKE OPINIE

NL1037664

Onderdeel V Gemotiveerde verklaring ten aanzien van nieuwheid, inventiviteit en industriële toepasbaarheid

1. Verklaring

Nieuwheid	Ja:	Conclusies 5, 7, 9
	Nee:	Conclusies 1-4, 6, 8
Inventiviteit	Ja:	Conclusies 5
	Nee:	Conclusies 7, 9
Industriële toepasbaarheid	Ja:	Conclusies 1-9
	Nee:	Conclusies

2. Citaties en toelichting:

Zie aparte bladzijde

Onderdeel VII Overige gebreken

De volgende gebreken in de vorm of inhoud van de aanvraag zijn opgemerkt:

Zie aparte bladzijde

Onderdeel VIII Overige opmerkingen

De volgende opmerkingen met betrekking tot de duidelijkheid van de conclusies, beschrijving, en figuren, of met betrekking tot de vraag of de conclusies nawerkbaar zijn, worden gemaakt:

Zie aparte bladzijde

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1 EP 1 698 245 A2 (YKK CORP [JP]) 6 September 2006 (2006-09-06)

D2 EP 0 276 890 A2 (AUSONIA SPA [IT]) 3 August 1988 (1988-08-03)

D3 EP 0 589 395 A1 (YOSHIDA KOGYO KK [JP] YKK CORP [JP]) 30 March 1994 (1994-03-30)

D4 EP 0 985 361 A1 (YKK CORP [JP]) 15 March 2000 (2000-03-15)

1 Both D1 and D2 already disclose a touch-fastening anti-skidding material (D1: claim 1; Figures 1 to 9; 100; D2: claim 1; Figures 1 to 5) comprising a knitted foundation layer (D1: 110; D2: Figure 2; column [=col.] 6, lines [=l.] 7-9) and a plurality of synthetic yarns (D1: 121a, 121b; page [=p.] 3, l.48-51; D2: 15; claim 6) that is secured together by being collectively knitted (D1: p.4, l.21-22; D2: col.5, l.31-34) in the foundation layer (D1: 110; D2: Fig.2), wherein the knitted foundation layer comprises a plurality of synthetic yarns (D1: 121a, 121b; D2: 15) and pliable base yarns (D1: 111, 112; D2: 11, 12, 13, 14), and each of the synthetic yarns (D1: 121a, 121b; D2: 15) is accompanied (D1: p.4, l.56 - p.5, l.5; D2: col.6, l.17-23) by a pliable base yarn (D1: p.4, l.45-46; D2: col.5, l.58 - col.6, l.2) so that the synthetic yarn (D1: 121a, 121b; D2: 15) and the base yarn (D1: 111, 112; D2: 11, 12, 13, 14) are knitted together in a dual yarn manner (D1: see Figures 3, 6, 8; D2: see Figure 1), the synthetic yarns (D1: 121a, 121b; D2: 15) and the base yarns (D1: 111, 112; D2: 11, 12, 13, 14) being knitted on a common plane (D1: Figures 3 or 6; D2: Figure 2) to form a foundation layer (D1: 110; D2: Fig.2) with short legs (D1: 120; D2: 21) formed by ends (D1: p.4, l.49-50; D2: col.7, l.9-18) of each of synthetic yarns (D1: 121a, 121b; D2: 15) extending outside the foundation layer (D1: p.4, l. 42-43; D2: col.3, l.22-26), the synthetic yarns showing rigidity strength (D1: p. 4, l.47-49; D2: claim 6 - see in this context also D4: col.1, l.28-33), whereby a flexible and light-weighted (D1: p.6, l.2-3; D2: col.8, l.28-31) touch-fastening anti-skidding material is formed.

Since all features of the subject-matter defined by claim 1 are known in

combination from a single prior art, the invention according to claim 1 is not new.

2 Furthermore, the additional features of the following embodiments are also known in the prior art either in conjunction with the features of the invention according to claim 1, or else in order to solve the underlying technical problem, as follows:

Claim	Source
2	D1: Figures 2, 5, 7, 9; D2: Figures 1 and 3 to 5; D3: Figures 8 and 9; col.4, l.14-21 and L.35-40;
3	D1: Figures 1 to 6; p.4, l.40-41; D2: col.7, l.2-8;
4	D1: Figures 8 and 9; p.7, l.39-42;
6	D2: col.7, l.15-18; D4: col.5, l.47-50;
7	D4: col.5, l.47-50;
8	D2: col.7, l.9-15; D4: col.5, l.47-50;
9	D4: col.5, l.50;

The invention defined by dependent claims 2 to 4 and 6 to 9 would therefore equally appear not to be new, or be considered as at least obvious over the combined prior art of D1 or D2 with D3 or D4.

3 The additional features of the subject-matter according to dependent claim 5 are not known from any of the prior art documents. While net-like cut-pile fabric is known for costly velvet fabrics such as high-grade dresses requiring air permeability and enhanced stretchability, a pointer toward using such mesh fabric as a foundation in contact fasteners is not found.

The invention according to dependent claim 5 would therefore appear to be new and not obvious. In this context, it should however be borne in mind that claim 5 is at odds with claim 3 and the embodiment according to Figure 7 of the current application.

4 The invention according to claims 1 to 9 would be susceptible for industrial application.

Re Item VII

Certain defects in the application

1 The relevant background art disclosed in D1 to D4 is not mentioned in the description, nor are these documents identified therein.

2 The features recited in claims 1 to 9 and denoted with reference signs in the drawings are not provided with reference signs placed in parentheses.

3 Although claim 1 is drafted in the two-part form, the features appearing in the characterising portion are incorrectly placed in the characterising portion, as it is evident from point V.1 above.

Re Item VIII

Certain observations on the application

1 Throughout the claims, the term "woven" is misused and mistaken for "knitted". This error impairs the clarity of all claims with regard to the scope of protection to be conferred by the claims.

2 The terms "rigidity strength" and "light-weighted" are not quantified in the application. The scope of protection to be conferred by claim 1 with these terms is therefore indeterminate and not clear.

3 The passage "a rear loop of the loops formed by the synthetic yarns being set to loop around a front loop of the loops" appearing in claim 2 is incomprehensible so long the various loops referred to are not clarified as base yarn loops or synthetic yarn loops.

From Figures 3 and 4 of the application, it would appear that claim 2 should address doubled needle stitches as known from D3 (Figure 8) anchoring the pile yarn (synthetic yarn) to the base fabric needle stitches, and the current assessment of claim 2 is based on this interpretation.

4 Claims 3 or 4 address hollow openings/hollow opening sections, the difference in significance of these terms with respect to simple openings remaining however obscure. Considering the fact that solid openings are hard to be found, the term "hollow" preceding "opening" would appear to be superfluous, thus rendering claims 3 and 4 not concise.