

Search history

Search PN=(WO2017097343) (Results 1)

1:

Search [SP]: cross-reference to prior application[0001] this application is a 371 national stage application of pct international application no. pct/ep2015/078998 filed dec. 8, 2015, which is incorporated herein in its entirety.technical field[0002] the present disclosure relates to a process for producing an imprinted or bonded sheet material and to an apparatus for producing such imprinted or bonded sheet material.background[0003] absorbent nonwoven materials are used for wiping various types of spills and dirt in industrial, medical, office and household applications. they typically include a combination of theititoplastic polymers (synthetic fibres) and cellulosic pulp for absorbing water and other hydrophilic substances, as well as hydrophobic substances (oils, fats). the nonwoven wipes of this type, in addition to having sufficient absorptive power, are at the same time strong, flexible and soft. they can be produced by various methods, including air-laying, wet-laying and foam-laying of a pulp-containing mixture on a polymer web, followed by dewatering and hydroentangling to anchor the pulp onto the polymer, and final drying. absorbent nonwoven materials of this type and their production processes are disclosed i.a. in wo 2005/042819, wo 2007/108725, wo 2008/066417 and wo 2009/031951.[0004] for various applications, it is desired to have visible patterns, such as figures, logotypes, text and the like, onto the nonwoven materials, so as to make them identifiable, for indicating their intended use, for promotional purposes etc. patterns can be applied by printing however, printing often results in bleeding of the ink into the nonwoven outside the pattern, e.g. when a wipe or the like is used together with solvents during use of the wipe (wiping), which is clearly undesired. for other applications, it is desired to achieve a degree of bonding of the thermoplastic fibres and the pulp fibres by exerting pressure[0005] page 2 and/or heat onto the mixed fibres. this bonding may be performed instead of, or in addition to bonding through water jets (hydroentangling).[0006] wo 95/09261 discloses nonwoven materials having geometrically repeating patterns that are formed by bonded and unbonded regions on the material. the nonwoven materials are three-layered laminates having outer spun-bound thermoplastic layers and an inner melt-blown fibre layer. the laminates are patterned by calendaring using heated embossing rolls ultrasonic bonding is mentioned as an alternative. a drawback of these materials is that the pattern is connected to bonding of the thermoplast and that, as a consequence, the patterns can only be small and at the same time must occupy a relatively large area of the nonwoven surface. this is particularly disadvantageous for absorbent nonwoven materials, containing cellulose pulp or the like, where bonding reduces the absorptive power and thermo-bonding is therefore preferably avoided.[0007] ultrasonic treatment is known in the art for providing bonding or welding energy to sheet materials. however, high-speed rotatory ultrasonic technology for treating pulp-containing nonwovens suffers from contamination of the anvil roll after relatively short periods of operation, especially in case of patterned anvil rolls this requires frequent cleaning steps, and results in imperfections or even holes in the produced sheet material as a result of undue sticking of the sheet to the anvil after the treatment, and in possible jamming of the equipment and hence in an inefficient operation of the process. moistening of the sheet material has been proposed for reducing the effects of contamination in ultrasonic welding however, this requires additional drying steps and may lead to corrosion and increased wear of the equipment. another prior art approach is to treat the anvil roll to provide it with nanostructures that prevent contamination however, this treatment appears not be effective for pulp-containing and similar materials.summary[0008] it is desired to provide a process for producing pulp-containing nonwoven sheet material involving oscillation energy treatment, such as ultrasonic treatment, in which contamination of the energy-emitting equipment is reduced or avoided, and which can be operated at high throughput. this is accomplished by adding an oil to the anvil to form a thin oil film on the relevant surfaces after the passing of the sheet material and removing used oil by, for example brushing off the used oil prior to the next passing of sheet material. this results in a strongly reduced contamination and reduced wearing effects on the equipment and the product.[0009] it is further desired to provide a patterned pulp-containing sheet material having substantially no surface imperfections beyond the patterning, in particular no holes, which material can be obtained by the above process.[0010] it is also desired to provide an apparatus for applying oscillating energy onto a sheet material for imprinting or bonding purposes, which avoids contamination of the sheet material.brief description of the drawings[0011] the accompanying figure diagrammatically depicts an installation for producing a nonwoven sheet material, which installation includes an apparatus for imprinting a sheet material according to the present disclosure.detailed description of particular embodiments[0012] the process for producing a sheet material as described above includes passing dried composite, pulp-containing sheet material between an energy-emitting device and a patterned anvil, wherein an oil is applied to the anvil after the passing of the sheet material and the applied oil is largely or essentially completely removed from the anvil before the next passing of the sheet material.[0013] with the present process and the present equipment, any spent material, dust-like or other, originating from the passing sheet, in particular any pulp-derived material, is absorbed into the oil and is then removed together with the spent oil. this causes the anvil, especially the protruded parts thereof forming an imprinting or compressing pattern, to be cleaned and hence to avoid surface effects on the imprinted sheet and to avoid jamming of the anvil roll.[0014] the energy transfer step is especially based on vibrational energy rather than by direct impact or heat. for providing a pattern by imprinting, it is important that the imprinting action does not include embossing or thermo-bonding of thermoplastic fibres to a significant degree. embossing (with moderately heated rolls) was found to result in less sharp patterns and thermo-bonding (which implies melting of the thermoplast) reduces the absorptive power of the resulting sheet material. on the other hand, where the energy transfer treatment is used for providing bonding in the composite sheet, some heat will not be detrimental to the sheet properties, or may even be desired.[0015] a very useful type of vibrational (oscillating) energy is ultrasound energy. thus, the process can include ultrasonic imprinting to produce a patterned sheet material. in a particular embodiment, the imprinting action is a rotatory action using a patterned anvil roll which conveys the sheet material to be imprinted, as shown in the accompanying fig. 1, and as further described below.[0016] the oil to be used for applying onto the anvil can be any oil that is sufficiently inert under the processing conditions, which typically imply the presence of air and temperatures between ambient and, say, 100 degrees centigrade thus, the oil should have low iodine values and low peroxide values. the oil should have low volatility and high flame points for example, the boiling point at ambient conditions should be at least 250 degrees centigrade and the flash point at least 200 degrees centigrade the oil should not be too viscous, since that would hinder a smooth application and subsequent removal of the oil. in particular embodiments, the pour point is below 0 degrees centigrade it should also not be too thin, in order to avoid the risk of dripping and the like. in particular embodiments, the oil has a (kinematic) viscosity of at least 10 and no more than 200 mm²/s (centistokes, cst), of 20-100 mm²/s, or of 50-80 mm²/s at 40 degrees centigrade [0017] particularly suitable are oils that are based on hydrocarbons or silanes or siloxanes or non-reactive derivatives thereof such as (poly)ethers and (poly)esters that do not contain unsaturations other than aromatic unsaturations. in embodiments, the hydrocarbons or sil(ox)anes are fully saturated, i.e. aliphatic or alicyclic. in a special embodiment, the oil is a saturated hydrocarbon or a saturated siloxane having at least 20 carbon and/or silicon atoms, up to e.g. 120 carbon and/or silicon atoms, or up to 60 carbon atoms in case of hydrocarbons. mineral oils and silicone oils are well suited for the purpose. mixtures of oils, or mixture of an oil and further components such as polyols may also be used.[0018] the oil can be applied by various spreading methods, including spraying, dripping, wiping, brushing, rubbing, sweeping, smearing and the like, all of which result in the oil being spread over the anvil's surface and in particular over the protrusions thereon, where the oil has its major function. a particular manner of applying the oil is to rub it using a suitable porous textile shaped material such as a felt, which is lightly pressed against the running anvil. felts or other oil-dispensing devices are widely commercially available in any shape or size. in particular embodiments, the pressure is such that the oil is at least spread onto the protruding parts of the anvil surface for (Results 5)

Search 2 and PD<20151208 (Results 4)

3:

1) Family number: 31392124 (US2005087292A)

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Title: METHODS OF BONDING MATERIALS, ESPECIALLY MATERIALS USED IN ABSORBENT ARTICLES

Abstract: Methods of and apparatus for bonding and/or embossing of materials, especially materials used in the manufacture of hygienic articles, including, but not limited, to absorbent articles such as feminine hygiene articles, disposable diapers, incontinence devices, wipes, and the like.

Classifications:

International (IPC 8-9): A61F13/15 A61F13/472 A61F13/49

B32B31/00 B32B37/00 B32B37/10 B32B38/06

B32B5/24 (Advanced/Invention);

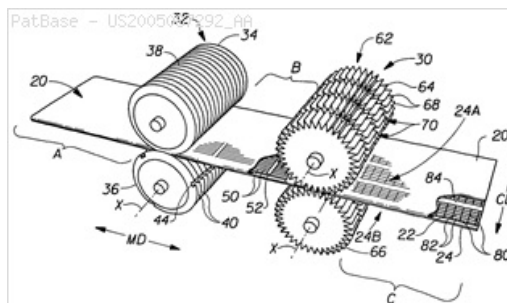
B32B37/00 (Core/Invention)

International (IPC 1-7): A61F13/15 B32B31/00 B32B37/00

CPC: B29C65/087 B29C65/02 A61F13/15699 A61F13/15731
B29C65/14 B29C66/21 B29C66/436 B29C66/83411 B29C66/83413
B29C66/8351 B29C66/83511 B29C66/92613 B29L2031/4878
B29C66/81429 B29C66/81433 B29C66/81435 B29C66/9241
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B29C65/7455 B29C65/7461 B29C66/729 B29C66/7294
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European: A61F13/15M5 A61F13/15M6C B29C65/02 B29C65/08
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L29C66/83413 L29C66/92613 L29L31/48E2

US: 156/209 156/290 156/308.2 156/308.4 156/553 156/553S



Family:

Publication number	Publication date	Application number	Application date
AT446732 E	20091115	AT20040754474T	20040607
CA2527968 AA	20051202	CA20042527968	20040607
CA2527968 C	20080930	CA20042527968	20040607
CN100488475 C	20090520	CN200480014251	20040607
CN1794961 A	20060628	CN200480014251	20040607
DE602004023841 D1	20091210	DE200460023841T	20040607
EP1635750 A1	20060322	EP20040754474	20040607
EP1635750 B1	20091028	EP20040754474	20040607
IN05232DN2005 A	20080104	IN2005DN05232	20051114
IN235356 B	20090731	IN2005DN05232	20051114
JP2006527102 T2	20061130	JP20060515227T	20040607
JP4571128 B2	20101027	JP20060515227T	20040607
MXPA05012846 A1	20060213	MX2005PA12846	20040607
US2005087292 AA	20050428	US20030456288	20030606
US7056404 BB	20060606	US20030456288	20030606
WO04108037 A1	20041216	WO2004US17875	20040607

Priority:

WO1998US25222 19981125

US20000555356 20001013

US20030456288 20030606

WO2004US17875 20040607

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Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

2) Family number: 31051147 (WO04089612A1)

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Title: METHOD AND ARRANGEMENT FOR BONDING PLIES OF TISSUE PAPER TOGETHER

Abstract: The present invention relates to a method of bonding plies of tissue paper together comprising the step of feeding a web of at least two plies (1, 2) of tissue paper through an ultrasonic bonding device (3) comprising at least one ultrasonic horn (4) and an anvil roller (5) having a pattern of protrusions (6) on its peripheral surface. The method comprises the further step of applying fluid to the web (1, 2) in a pattern corresponding to the pattern of protrusions (6) before the web passes the ultrasonic horn (4). The invention also relates to an arrangement for performing the method.

Classifications:

International (IPC 8-9): B29C65/00 B29C65/02 B29C65/08

B31F5/00 (Advanced/Invention);

B29C65/00 B29C65/02 B29C65/08 B31F5/00 (Core/Invention)

International (IPC 1-7): B29C65/00 B29C65/02 B29C65/08

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CPC: B29C65/086 B29C66/21 B29C66/305 B29C66/83411

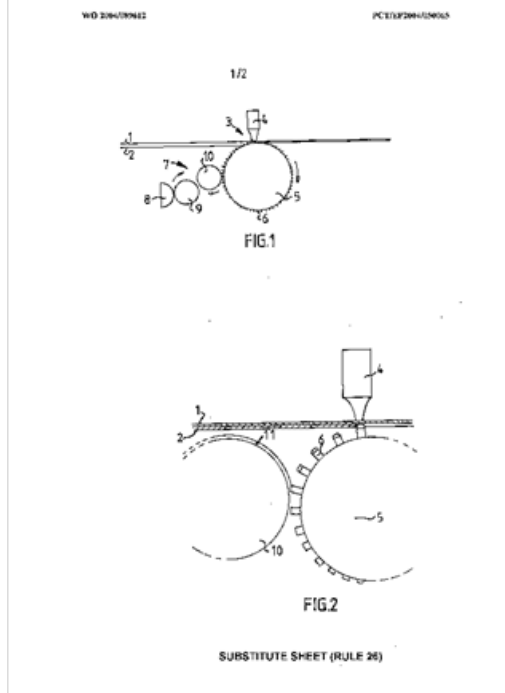
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European: B29C65/02 B29C65/02T20 B29C65/08 B29C66/21

B29C66/305 B29C66/83411 B31F5/00E L29C65/08D4 L29C66/83511

L29C795/00 L29K711/12C L29K995/00E2

**Family:**

Publication number	Publication date	Application number	Application date
EP1466721 A1	20041013	EP20030007878	20030407
WO04089612 A1	20041021	WO2004EP50065	20040202

Priority:

EP20030007878 20030407

Probable Assignee: SCA HYGIENE PROD GMBH**Assignee(s):** (std): SCA HYGIENE PROD GMBH**Assignee(s):** SCA HYGIENE PRODUCTS GMBH**Inventor(s):** (std): SCHINKOREIT WOLFRAM

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

3) Family number: 41861789 (US2010075120A)

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Title: HYDROENTANGLED NONWOVEN MATERIAL

Abstract: A hydroentangled nonwoven material (8), includes a mixture of randomized continuous filaments (3) and natural fibres (5), wherein at least part of the staple fibres and/or the continuous filaments includes thermoplastic material. The nonwoven material is bonded in a non-random bonding pattern including a plurality of bonding sites (14) in which thermoplastic material included in the nonwoven material has been caused to at least partly soften or melt to create thermal bonds between the continuous filaments. The nonwoven material includes no other thermal bonds between the filaments than provided by the non-random bonding pattern. The nonwoven material may also contain synthetic staple fibers (6).

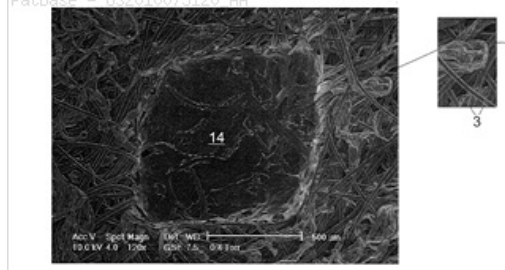
Classifications:

International (IPC 8-9): B29C65/08 B32B3/10 B32B5/26 B32B7/04 B32B9/02 D04H1/4258 D04H1/4291 D04H1/4334 D04H1/435 D04H1/4382 D04H1/46 D04H1/485 D04H1/492 D04H1/54 D04H1/62 D04H13/00 D04H3/02 D04H5/02 D04H5/03 D04H5/06 D04H5/08 (Advanced/Invention)

CPC: Y10T428/2481 D04H5/03 B32B5/26 B32B9/02 D04H1/4258 D04H1/4291 D04H1/4334 D04H1/435 D04H1/4382 D04H1/485 D04H1/492 D04H1/54 D04H3/02 D04H5/06 D04H5/08 D04H13/00 Y10T442/682 Y10T442/684 Y10T442/686 Y10T442/689 Y10T442/69

European: B32B5/26 B32B9/02 D04H1/4258 D04H1/4291 D04H1/4334 D04H1/435 D04H1/4382 D04H1/485 D04H1/492 D04H1/54 D04H13/00 D04H3/02 D04H5/03 D04H5/06 D04H5/08
US: 156/148 156/148S 156/73.2 156/73.200S 428/196 428/196P 442/402 442/403 442/405 442/408 442/409

PatBase - US2010075120 A1

**Family:**

Publication number	Publication date	Application number	Application date
AU2006351268 AA	20080605	AU20060351268	20061129
AU2006351268 BB	20130117	AU20060351268	20061129
EP2102402 A1	20090923	EP20060824487	20061129
EP2102402 A4	20101208	EP20060824487	20061129
MX2009005540 A1	20090605	MX2009005540	20061129
US2010075120 AA	20100325	US20060447397	20061129
US8389427 BB	20130305	US20060447397	20061129
WO08066417 A1	20080605	WO2006SE01353	20061129

Priority:

WO2006SE01353 20061129

Probable Assignee: SCA HYGIENE PRODUCTS AB**Assignee(s):** (std): FINGAL LARS ; GUSTAFSSON ANDERS ; SCA HYGIENE PROD AB ; STANDQVIST MIKAEL ; STRANDQVIST MIKAEL ; TONDKAR KAVEH**Assignee(s):** SCA HYGIENE PRODUCTS AB**Inventor(s):** (std): TONDKAR KAVEH ; STANDQVIST MIKAEL ; GUSTAFSSON ANDERS ; FINGAL LARS ; STRANDQVIST MIKAEL**Inventor(s):** ANDERS GUSTAFSSON ; KAVEH TONDKAR ; LARS FINGAL ; MIKAEL STANDQVIST**Agent(s):** WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; VALEA AB; YOUNG AND THOMPSON**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**4) Family number: 20354877 (US5989370A)**

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Title: METHOD AND ARRANGEMENT FOR ULTRASONIC WELDING

Abstract: PCT No. PCT/SE94/01034 Sec. 371 Date May 8, 1996 Sec. 102(e) Date May 8, 1996 PCT Filed Nov. 3, 1994 PCT Pub. No. WO95/13182 PCT Pub. Date May 18, 1995 The present invention relates to a method and apparatus for ultrasonic welding of material webs which move between at least one ultrasonic horn of an ultrasonic welding arrangement and an anvil holder having a determined pattern of anvils, so as to enable the webs to be welded at high web speeds. The weld width of each ultrasonic horn in the ultrasonic welding arrangement is determined in accordance with the intended highest travel speed of the webs.

Classifications:**International (IPC 8-9):** B23K20/10 B29C65/08

H01R43/02 (Advanced/Invention);

B29C65/00 (Advanced/Non-invention);

B23K20/10 B29C65/08 (Core/Invention);

B29C65/00 (Core/Non-invention)

International (IPC 1-7): B23K20/10 B29C65/08 B32B31/08

B32B31/20

CPC: B29C65/086 B29C66/83411 B29C66/83511 B29C66/939

B29C66/81427 B29C66/9321 B29C66/934 B29C66/8222

B29C66/9513 B29C66/964 B29C66/1122 B29C66/41 B29C66/71

B29C66/7294 B29C66/73921 B29C66/81469 B29C66/9221

B29C66/9241 B29C66/961 B29L2031/4878 B29C66/92611

European: B29C65/08 B29C66/83411 B29C66/90 B29C66/939

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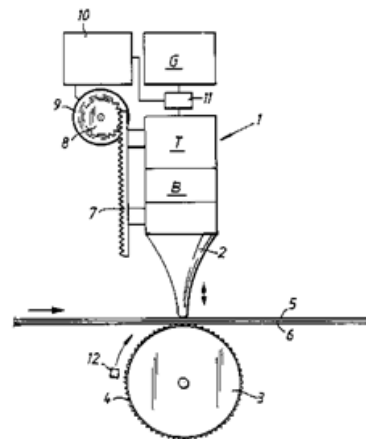
US: 156/290 156/324 156/580.2 156/73.1

PatBase - US5989370_A

U.S. Patent

Nov. 23, 1999

5,989,370

**Family:**

Publication number	Publication date	Application number	Application date
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CO4340634 A1	19960730	CO19940048939	19941026
DE69413415 D1	19981022	DE19946013415	19941103
DE69413415 T2	19990204	DE19946013415T	19941103
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EP0730523 B1	19980916	EP19950900967	19941103
GB2283700 A1	19950517	GB19940022400	19941107
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GB9422400 A0	19950104	GB19940022400	19941107
PE27295 A1	19951003	PE19940253378	19941024
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WO9513182 A1	19950518	WO1994SE01034	19941103
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Priority:

SE19930003693 19931109

WO1994SE01034 19941103

Probable Assignee: SCA HYGIENE PRODUCTS AKTIEBGOLAG

Assignee(s): (std): MOELNLYCKE AB ; SCA HYGIENE PRODUCTS AKTIEBOLA ; SCA MOELNLYCKE AB ; SCA HYGIENE PROD
AB ; WANNBO ANDREAS

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PRODUCTS AKTIEBGOLAG ; SCA MOELNLYCKE AB GOETEBORG GOTENBURG SE ; SCA MOLNLYCKE AB
; MOLNLYCKE AB ; MOLNLYCKE ABS

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Inventor(s): WANNBO ANDREAS S 437 35 LINDOME SE

Agent(s): ERNESTO CAVELIER

Designated states: AT AU BE CA CH CZ DE DK ES FI FR GB GR HU IE IT JP LU MC NL NO NZ PL PT SE SK US

Search history

Search 1: SFT=((ultrasonic and (non w5 woven) and fiber and oil and (pulp or paste)) and PD<20151208 (Results 800)

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Search 3: SFT=((ultrasonic and (non w5 woven) and fiber and oil and (pulp or paste) and (anvil w5 pattern*) and process) and PD<20151208 (Results 41)

Search 4: SFT=((ultrasonic and (non w5 woven) and fiber and oil and (pulp or paste) and (anvil w5 pattern*) and process) and PD<20151208 (Results 41)

Search 5: SFT=((anvil w5 pattern*) and oil and (clean or remove) and pulp and (wiper or scraper) and (sheet w5 material)) and PD<20151208 (Results 1)

Search 6: SFT=((anvil w5 pattern*) and oil and (clean* or remov*) and (wiper or scraper) and (sheet w5 material)) and PD<20151208 (Results 2)

Search 7: SFT=((anvil) and oil and (clean* or remov*) and (wiper or scraper) and sheet) and PD<20151208 (Results 112)

1) Family number: 28538006 (US2003089452A)

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Title: APPARATUS AND METHOD FOR APPLYING LINERLESS LABELS

Abstract: A method and apparatus useful in the application of linerless labels to surfaces of elements is provided in a methodology so that conventional lined label applicators can be used with linerless labels. A source of linerless labels is provided comprising a composite of an elongate sheet of reusable, temporary liner having adhered to a low adhesion surface of said reusable, temporary liner an adhesive face of a precut linerless label, the composite possibly being in a roll. The source of linerless labels is used in a method for enabling a lined label applicator to accept linerless label sheet for application to the surface of elements comprising associating a source of precut linerless labels on a roll of reusable, temporary liner sheet to a lined label applicator so that a composite of: a) the reusable, temporary liner sheet and b) preferably micro-bridged cut-out linerless labels is fed into the lined label applicator where lined label is normally directed into the lined label applicator.

Classifications:

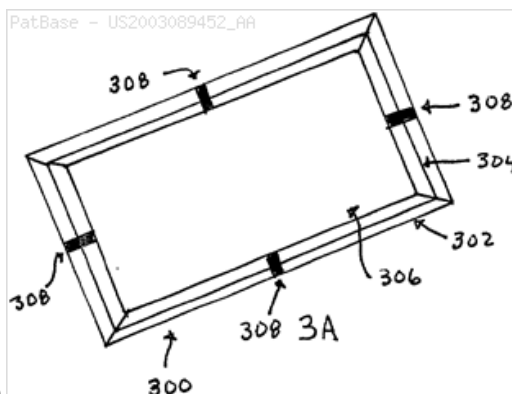
International (IPC 8-9): B23B38/04 B23D25/12 B26D5/26 B26D7/08 B26F1/10 B29C65/48 B31D1/02 B32B37/08 B32B37/12 B32B38/04 B32B38/10 B32B38/14 B32B38/18 B32B43/00 B65C9/00 B65C9/18 G09F3/00 G09F3/10 (Advanced/Invention); B65C9/00 (Advanced/Non-invention); B26F1/02 B31D1/00 B32B37/12 B32B38/04 B32B38/14 B65C9/00 B65C9/08 G09F3/00 (Core/Invention); B65C9/00 (Core/Non-invention); B32B (Subclass/Invention)

International (IPC 1-7): B32B3/06 B32B3/10 B32B31/00 B32B31/08 B32B31/18 B32B38/04 B32B7/06 B32B7/10 B32B7/12 B32B7/14 B65C9/18

CPC: Y10T156/1082 Y10T156/12 Y10T156/1052 Y10T156/1057 Y10T156/1062 Y10T156/1085 B29C2793/0036 B65C9/1819 B65C9/0015 B65C2009/1846 Y10T156/1056 Y10T156/1064 Y10T156/1077 Y10T156/1084 Y10T156/133 Y10T156/1378 Y10T156/1911 B31D1/021 B31D1/026 B65C9/0006 B65C9/1803 B65C9/1865 B65C9/1896 B65C2009/0021 B65C2009/1861 G09F3/10 Y10T83/283 Y10T83/293 Y10T83/483

European: B31D1/02B B31D1/02G B65C9/00C B65C9/18A B65C9/18A4B B65C9/18B B65C9/18D G09F3/10 L29C793/00D L65C9/00B L65C9/00C2B L65C9/18A8B L65C9/18A8G2

US: 156/250 156/252 156/253 156/256 156/256S 156/257 156/265 156/265S 156/268 156/269 156/270 156/277 156/51 156/510 156/510S 156/519 156/519S 156/530 156/752 156/80 83/170 83/171 83/343



Family:

Publication number	Publication date	Application number	Application date
AU2007328208 AA	20080612	AU20070328208	20071205
AU2007328208 BB	20120726	AU20070328208	20071205
BR0214211 A	20041026	BR20020014211	20021114
BRPI0214211 A	20041026	BR2002PI14211	20021114
BRPI0720225 A2	20131224	BR2007PI20225	20071205
BRPI0720225 B1	20180821	BR2007PI20225	20071205
CA2467525 AA	20040517	CA20022467525	20021114
CA2671723 AA	20090605	CA20072671723	20071205
CA2671723 C	20150519	CA20072671723	20071205
CN101616803 A	20091230	CN200780050544	20071205
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CO6190631 A2	20100819	CO20090069598	20090706
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EP2114674 A4	20121107	EP20070862548	20071205

EP2114674 B1	20150916	EP20070862548	20071205
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IN01084MN2009 A	20090619	IN2009MN01084	20090607
IN292280 B	20180202	IN2009MN01084	20090607
JP2010511545 T2	20100415	JP20090540278T	20071205
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KR101493537 B1	20150213	KR20097014121	20071205
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MX2009006067 A1	20090616	MX20090006067	20071205
MXPA04004644 A1	20050517	MX2004PA04644	20021114
MY166345 A	20180625	MY20090002336	20071205
RU2009125573 A	20110120	RU20090125573	20071205
RU2450935 C2	20120520	RU20090125573	20071205
TR201514885 T4	20151221	TR20150014885T	20071205
US2003089452 AA	20030515	US20010000254	20011115
US2004250947 AA	20041216	US20030462021	20030613
US2007074809 AA	20070405	US20060634498	20061206
US2011036504 AA	20110217	US20100906586	20101018
US7556708 BB	20090707	US20030462021	20030613
US7815761 BB	20101019	US20060634498	20061206
US8371354 BB	20130212	US20100906586	20101018
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WO04114255 A2	20041229	WO2004US18386	20040609
WO04114255 A3	20050929	WO2004US18386	20040609
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WO08070119 B1	20080724	WO2007US24911	20071205
ZA200904294 A	20100825	ZA20090004294	20090618

Priority:

US20010000254 20011115 WO2002US36695 20021114 US20030462021 20030613
US20060634498 20061206 EP20070862548 20071205 WO2007US24911 20071205
US20100906586 20101018

Probable Assignee: AVERY DENNISON CORP

Assignee(s): (std): ADVANCED LABEL SYSTEMS INC ; AVERY DENNISON CORP ; EHJVERI DENNISON CORP ; PHILLIPS ROBERT

Assignee(s): HANSEN THOMAS E ; ADVANCED LABEL SYSTEMS ; EHJVERI DENNISON KORPOREJSHN ; AVERY DENNISON CORP PASADENA

Inventor(s): (std): ROBERT PHILLIPS ; THOMAS E HANSEN ; WESTIN MARK ; PHILLIPS ROBERT ; HANSEN THOMAS E ; FILLIPS ROBERT ; PHILLIP ROBERT

Inventor(s): ROBERT PHILLIP ; PHILLIPS ROBERT EDEN PRAIRIE

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; CALLINANS; FISHER ADAMS KELLY CALLINANS; SPRUSON AND FERGUSON; RICHES MCKENZIE AND HERBERT LLP; GOWLING LAFLEUR HENDERSON LLP; HUMBERTO RUBIO CAMACHO; MUELLER BORE AND PARTNER PATENTANWAELTE PARTG MBB; PEEL JAMES PETER; MUELLER BORE AND PARTNER PATENTANWAELTE PARTG MBB; DE ELZABURU ALBERTO; PINAR ARIKAN; MARK A LITMAN AND ASSOCIATES PA YORK BUSINESS CENTER; MARK A LITMAN AND ASSOCIATES PA; AVERY DENNISON CORP; LITMAN MARK A

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

2) Family number: 22989019 (FR1343799A)

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Title: NOUVELLES COMPOSITIONS EXPLOSIVES ET LEUR PROCEDE DE FABRICATION NEW EXPLOSIVE COMPOSITION AND METHOD OF MAKING (Machine translation)

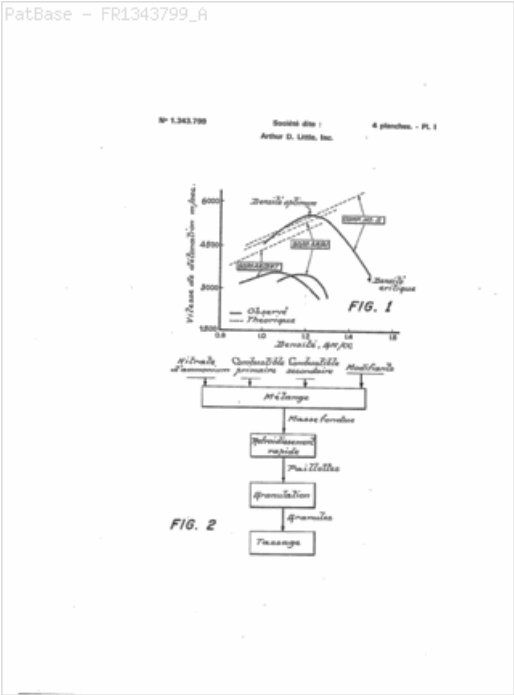
Abstract: Source: FR1343799A [FR] (Claim 1) 1. Un explosif puissant que l'on peut faire detoner dans des cartouches de diametre relativement petit, caracterise par les points suivants, pris isolement ou en combinaisons: a. Il comprend un melange intime de nitrate d'ammonium et d'un combustible capable de reagir avec ce nitrate d'ammonium pour former des produits gazeux et de liberer de l'energie, une partie au moins dudit nitrate d'ammonium de ce melange se trouvant sous forme de cristaux disperses dans une enveloppe cristalline comprenant ce combustible; b. Les dimensions des cristaux de nitrate d'ammonium ne dépassent pas 100 microns; c. Le combustible est une matiere organique qui forme une masse fondue homogene avec le nitrate d'ammonium a des temperatures inferieures a 170 [deg]C et qui est capable d'etre oxyde par ce nitrate d'ammonium poui former des produits pratiquement tous gazeux et de mettre en liberte suffisamment d'energie pour entretenir une onde de choc de detonation; d. La quantite de nitrate d'ammonium presente est suffisante pour fournir au moins suffisamment d'oxygene dans le combustible pour bruler sensiblement tout le carbone present en CO et sensiblement tout l'hydrogene present en H2O; e. Il comprend un agent modifiant la cristallisation, capable d'agir sur -la formation des cristaux de nitrate d'ammonium de telle maniere que lesdits cristaux aient une dimension maximale ne dépassant pas 100 microns quand on chauffe ledit melange pour former une masse fondue et qu'on la refroidit ensuite rapidement; f. Il est constitue par un melange intime de nitrate d'ammonium et de melange de combustibles, ce melange de combustibles comprenant un combustible primaire et un combustible secondaire, le combustible primaire etant une substance organique qui est capable de former une masse fondue homogene avec le nitrate d'ammonium a des temperatures inferieures a 170 [deg]C et qui est a meme d'etre oxyde par le nitrate d'ammonium pour former des produits tous gazeux et de liberer suffisamment d'energie pour entretenir une onde de choc de detonation, ledit combustible secondaire etant facilement oxydable pour former des produits gazeux et pour liberer des quantites d'energie relativement importantes, une partie au moins du nitrate d'ammonium de ce melange se trouvant sous forme de cristaux enrobes dans une enveloppe cristalline comprenant ledit combustible primaire; g. Le combustible est l'hexamethylenetetramine; h. Le combustible est la dicyandiamide; i. Le combustible est l'uree.

Machine translation: (Claim 1) 1. A powerful explosive that can be detonated in cartridges of relatively small diameter, characterized by the following, taken alone or in combination: a. It includes an intimate mixture of ammonium nitrate and fuel can react with the ammonium nitrate to form gaseous products and release energy, at least part of said ammonium nitrate to this mixture present in the form of crystals dispersed in an envelope comprising crystalline this fuel, b. The dimensions of the crystals of ammonium nitrate do not exceed 100 microns; c. Fuel is an organic matter that forms a

homogeneous melt with ammonium nitrate at temperatures below 170 [deg] C and is capable of being oxidized by the ammonium nitrate poui form gaseous products and virtually all to set at liberty enough energy to sustain a shock wave of detonation d. The amount of ammonium nitrate present is sufficient to provide at least enough oxygen in the fuel to burn substantially all of the carbon present in CO and substantially all the hydrogen present in H2O e. It includes a crystallization modifier, capable of acting on-the formation of crystals of ammonium nitrate in such a way that said crystals have a maximum dimension not exceeding 100 microns when heating said mixture to form a melt and that 'then rapidly cooled f. It is an intimate mixture of ammonium nitrate and fuel mixture, this mixture of fuels including fuel primary and a secondary fuel, the primary fuel being an organic substance which is capable of forming a homogeneous melt with nitrate Ammonium temperatures below 170 [deg] C and is likely to be oxidized by ammonium nitrate to form gaseous products and all release enough energy to sustain a shock wave of detonation, said secondary fuel being easily oxidized to form gaseous products and to liberate the relatively large amounts of energy, at least part of ammonium nitrate to this mixture is in the form of crystals embedded in a crystalline envelope comprising said primary fuel; g. Fuel is the hexamethylenetetramine h. The fuel is dicyandiamide; i. The fuel is urea.

Classifications:

International (IPC 8-9): C06B21/00 C06B23/00 C06B31/32 (Advanced/Invention);
C06B21/00 C06B23/00 C06B31/00 (Core/Invention)
International (IPC 1-7): C06B1/04
CPC: C06B21/005 C06B23/00 C06B31/32
European: C06B21/00C4 C06B23/00 C06B31/32



Family:

Publication number	Publication date	Application number	Application date
FR1343799 A	19631122	FR19620913175	19621023

Priority:

FR19620913175 19621023

Probable Assignee:

LITTLE INC A

Assignee(s): (std):

LITTLE INC A

Assignee(s):

ARTHUR D LITTLE INC

3) Family number: 20681028 (WO0020667A1)

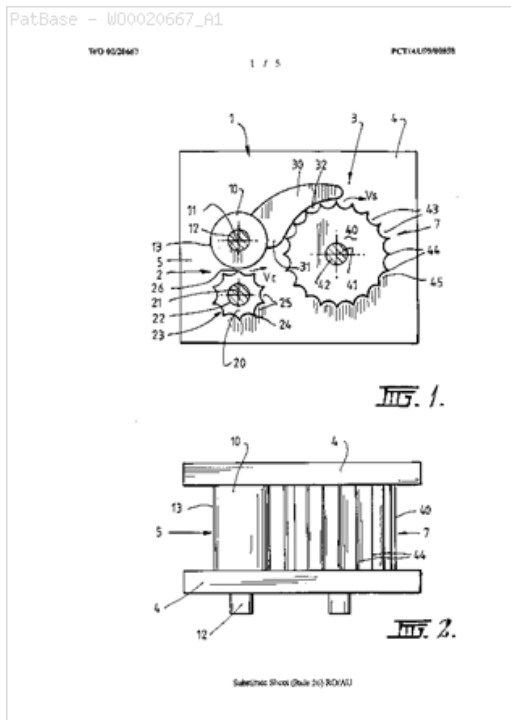
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Title: APPARATUS AND METHOD FOR PROCESSING GREEN FIBROUS PLANT STALKS

Abstract: A method and apparatus for processing a green plant stalk (90) having a fibrous outer part and an inner hurd. Stalk (90) is split longitudinally with knife-splitter (54) to expose the hurd. Split stalk portion (92) then passes through the nip of externally-fluted conditioner roller (56) and smooth-surfaced anvil roller (58) to divide the exposed hurd into segments, and the fibre is separated from the hurd with decorticator (80).

Classifications:

International (IPC 8-9): D01B1/14 D01B1/22 (Advanced/Invention);
D01B1/00 (Core/Invention)
International (IPC 1-7): D01B1/14 D01B1/22
CPC: D01B1/14 D01B1/22
European: D01B1/14 D01B1/22

**Family:**

Publication number	Publication date	Application number	Application date
AT305059 E	20051015	AT19990953432T	19991006
AU200010192 A1	20000426	AU20000010192	19991006
AU200010192 A5	20000426	AU20000010192	19991006
AU290599 A0	19991007	AU1999PQ02905	19990916
AU637798 A0	19981029	AU1998PP06377	19981006
AU638498 A0	19981029	AU1998PP06384	19981006
AU768637 B2	20031218	AU20000010192	19991006
CA2386405 AA	20020404	CA19992386405	19991006
DE69927413 D1	20060202	DE19996027413	19991006
EP1155172 A1	20011121	EP19990953432	19991006
EP1155172 A4	20030507	EP19990953432	19991006
EP1155172 B1	20050921	EP19990953432	19991006
NZ511539 A	20030131	NZ19990511539	19991006
WO0020667 A1	20000413	WO1999AU00858	19991006

Priority:

AU1998PP06377 19981006 AU1998PP06384 19981006 AU1999PQ02905 19990916
 AU20000010192 19991006 WO1999AU00858 19991006

Probable Assignee: FIBRE LAB PTY LTD**Assignee(s):** (std): CLARKE ADRIAN FRANCIS ; FIBRE LAB PTY ; FIBRE LAB PTY LTD ; MIERISCH R C ; MIERISCH CHARLES GEORGE ; MIERISCH ROBERT CHARLES**Assignee(s):** FIBRE LABORATORY PTY BOX HILL ; FIBRE LABORATORY PTY LTD ; FIBRE LABORATORY PTY**Inventor(s):** (std): CLARKE ADRIAN FRANCIS ; CLARKE FRANCIS ; MIERISCH CHARLES ; MIERISCH CHARLES GEORGE ; MIERISCH GEORGE ; MIERISCH ROBERT CHARLES ; ROBERT CHARLES MIERISCH ; CHARLES GEORGE MIERISCH ; ADRIAN FRANCIS CLARKE**Agent(s):** FB RICE; FB RICE PTY LTD; OGILVY RENAULT LLP SENCRL SRL**Designated states:** AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW**4) Family number: 29958033 (ZA200302954A)**

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Title: HYDROENTANGLED NONWOVEN COMPOSITE STRUCTURES CONTAINING RECYCLED SYNTHETIC FIBROUS MATERIALS.

Abstract: A hydraulically entangled nonwoven composite structure that includes a matrix of substantially continuous filaments; and recycled synthetic fibers and fiber-like materials having at least one thread element composed of synthetic material with at least one irregular distortion generated by hydraulic fracture of the thread element to separate it from a bonded fibrous material while the bonded fibrous material is suspended in a liquid. This nonwoven composite structure may be used as a wiper or an absorbent material. A method of forming the nonwoven composite structure includes the steps of: (a) providing a layer of recycled synthetic fibers and fiber-like materials having at least one thread element composed of synthetic material containing at least one irregular distortion generated by hydraulic fracture of the thread element to separate it from a bonded fibrous material while the bonded fibrous material is suspended in a liquid; (b) superposing the layer of recycled fibers and fiber-like materials over a layer of substantially continuous filaments; (c) hydraulically entangling the layers to form a nonwoven web; and (d) drying the web.

Classifications:**International (IPC 8-9):** A47K10/32 A47L13/16 C08L101/16

D04H1/42 D04H1/46 D04H13/00 D04H3/10

D04H5/02 (Advanced/Invention);

D04H1/46 (Advanced/Non-invention)

International (IPC 1-7): A47K10/32 A47L13/16 D04H1/42 D04H1/46

D04H13/00 D04H3/10 D04H5/02
CPC: Y02P20/582 A47L13/16 D04H1/492 D04H1/732 D04H5/03
D04H1/4274 D04H1/498 D04H3/14 D04H5/02
European: A47L13/16 D04H1/46B D04H13/00B3B D04H5/02



Family:

Publication number	Publication date	Application number	Application date
AR031318 AA	20030917	AR2001P105255	20011109
AU2002230632 AA	20020521	AU20020230632	20011107
AU2002230632 BB	20070308	AU20020230632	20011107
AU200230632 A1	20020521	AU20020030632	20011107
AU200230632 A5	20020521	AU20020030632	20011107
BRPI0115308 A	20031230	BR2001PI15308	20011107
CA2425947 AA	20030415	CA20012425947	20011107
CN1539036 A	20041020	CN20018018625	20011107
DOP2001000283 A	20030131	DO20010000283	20011109
EP1341953 A2	20030910	EP20010990867	20011107
JP2004522004 T2	20040722	JP20020541156T	20011107
KR20030060104 A	20030712	KR20037006328	20011107
MXPA03003769 A1	20030728	MX2003PA03769	20011107
TH57079 A	20030704	TH20011004509	20011106
WO0238846 A2	20020516	WO2001US46781	20011107
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ZA200302954 A	20040415	ZA20030002954	20030415

Priority:

US20000247302P 20001110 WO2001US46781 20011107

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): KIMBERLY CLARK CO ; KIMBERLY CLARK CORP

Assignee(s): KIMBERLY CLARK WORLDWIDE INC ; PALACIO GUSTAVO ; RADWANSKI FRED ROBERT ; RAMIREZ PABLO ; SKERRETT JOHN RICHARD ; SKOOG HENRY ; VANEGAS BERNARDO ; GARCIA MARIA CLARA ; JONES PRISCILLA M

Inventor(s): (std): BERNARDO VANEGAS ; FAMIRES PABLO ; FRED ROBERT RADWANSKI ; GARCIA MARIA CLARA ; GUSTAVO PALACIO ; HENRY SKOOG ; JOHN RICHARD SKERRETT ; JONES PRISCILLA M ; KIMBERLY CLARK WORLDWIDE INC ; MARIA CLARA GARCIA ; PABLO FAMIRES ; PALACIO GUSTAVO ; PRISCILLA M JONES ; RADWANSKI FRED ROBERT ; RAMIREZ PABLO ; SKERRETT JOHN RICHARD ; SKOOG HENRY ; VANEGAS BERNARDO ; SKERRETT JOHN RICHARD

Inventor(s): JOHN RICHARD SKERRETT ; PABLO RAMIREZ

Agent(s): FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS; HERBERT SMITH FREEHILLS; FREEHILLS PATENT ATTORNEY S; FPA PATENT ATTORNEYS PTY LTD; BORDEN LADNER GERVAIS LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

5) Family number: 42975041 (US2009057456A)

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Title: ROLLED TISSUE PRODUCT HAVING A FLEXIBLE CORE

Abstract: A rolled tissue product having a nonwoven tissue web wrapped or wound about a flexible core is generally provided. The flexible core is constructed of a polymeric sheet of synthetic polymers. The tissue sheet has a tensile strength in the machine direction that is weaker than the strength of the flexible core. For example, the flexible core can be at least twice as strong as the tensile strength in the machine direction of the nonwoven tissue web. The flexible core can include a nonwoven web of synthetic polymeric fibers, a polymeric film of synthetic polymers, or combinations thereof. In one embodiment, the flexible core can include a hydrophilic synthetic polymer such that the flexible core disintegrates when submerged in water. In another embodiment, the flexible core can include an elastomeric polymer that provides an elastic component to the flexible core.

Classifications:

International (IPC 8-9): A47K10/16 B65H75/02 (Advanced/Invention);

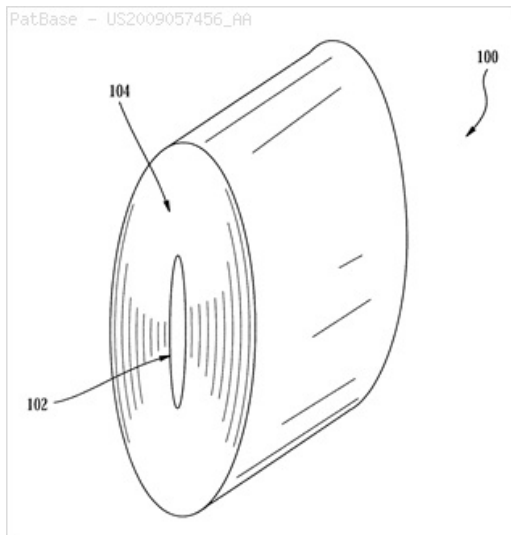
A47K10/00 B65H75/02 (Core/Invention);

A47K B65H (Subclass/Invention)

CPC: A47K10/16 A47K2010/3206

European: A47K10/16 K47K10/32B

US: 242/160.1

**Family:**

Publication number	Publication date	Application number	Application date
AU2008291791 AA	20090305	AU20080291791	20080625
BRPI0815298 A2	20150203	BR2008PI15298	20080625
EP2187791 A1	20100526	EP20080776516	20080625
IL203304 A1	20131031	IL20080203304	20080625
MX2010001233 A1	20100301	MX20100001233	20080625
US2009057456 AA	20090305	US20070848953	20070831
WO09027874 A1	20090305	WO20081B52557	20080625

Priority:

US20070848953 20070831 WO20081B52557 20080625

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): KIMBERLY CLARK CO ; KRUCHOSKI BENJAMIN JOSEPH ; SHANNON THOMAS GERARD

Assignee(s): KIMBERLY CLARK CORP ; KIMBERLY CLARK WORDWIDE INC ; KIMBERLY CLARK WORLDWIDE INC

Inventor(s): (std): KRUCHOSKI BENJAMIN JOSEPH ; SHANNON THOMAS GERARD

Inventor(s): BENJAMIN JOSEPH KRUCHOSKI ; THOMAS GERARD SHANNON

Agent(s): SPRUSON AND FERGUSON; DAVIES CHRISTOPHER ROBERT; REINHOLD COHN AND PARTNERS;
DORITY AND MANNING PA; MARSHALL ALAN R

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU
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MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY
SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

6) Family number: 19712041 (US2173032A)

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Title: PRODUCTION OF PILE-SURFACED MATERIALS

Abstract: (Claim 1) 1 A method of forming pile surfaced materials which comprises establishing an electric field between opposed electrode structures, positioning an adhesive surfaced foundation material in said field 105 adjacent one of the electrodes, suspending pile-forming materials in a gas stream and directing the said gas stream into the electric field.

Classifications:

International (IPC 8-9): D04H11/00 (Advanced/Invention);

D04H11/00 (Core/Invention)

International (IPC 1-7): A42C1/08 B05B5/02 B05D1/14 B41F23/04

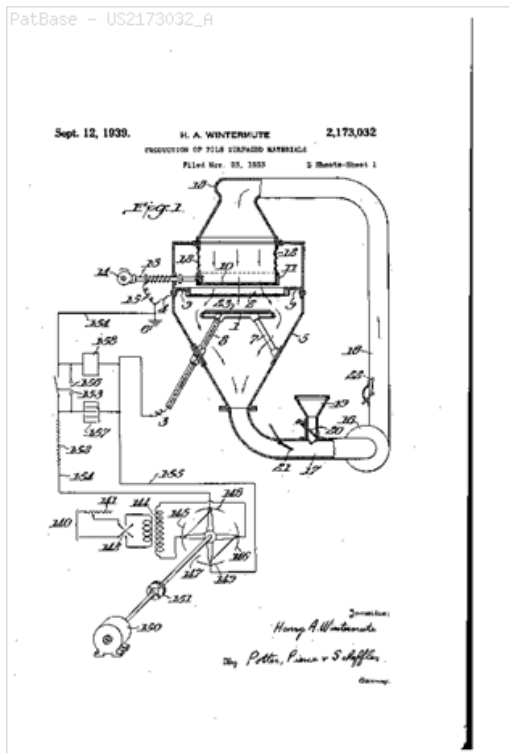
D04H11/00 D06N7/00

CPC: D04H11/00 Y10S101/37

European: D04H11/00

US: 101/129 101/DIG.37 118/304 118/309 118/311 118/312

118/407 118/57 118/612 118/629 118/63 118/636 427/414 427/463
427/482

**Family:**

Publication number	Publication date	Application number	Application date
BE422940 A	19370831		00000000
FR823117 A	19380114		00000000
GB501637 A	19390228	GB19370014869	19370528
GB501687 A	19390228	GB19380001650	19370528
GB501706 A	19390228	GB19380016256	19370528
US2173032 A	19390912	US19330699456	19331123

Priority:

US19330699456 19331123 GB19370014869 19370528

Probable Assignee: BEHR MANNING CORP

Assignee(s): (std): BEHR MANNING CORP ; RESEARCH CORP

Inventor(s): (std): WINTERMUTE HARRY A

7) Family number: 11713043 (US5763131A)

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Title: Liquid toner and imaging system

Abstract: A toner for electrographic printing includes a liquid carrier and a release agent added to the carrier to reduce the amount of carrier leaving the developer section, thus allowing operation at higher speeds and reducing the time and energy required for carrier removal in subsequent sections. An imaging system, or unit of an imaging system, and a method of imaging employ an imaging member such as a belt to form a liquid-toned image, to condition the image, and to transfer it to a print-receiving medium. The member moves through several sections, and transports liquid toner out of an image-developing section. In a preferred embodiment the release agent wets the imaging member, and has a higher boiling point than the carrier and a lower surface tension, though its viscosity may be higher. The release agent reduces carrier entrainment, and coats the imaging member, also enhancing transfer of the final print image. It may also counteract aging characteristics of the imaging member.

Classifications:

International (IPC 8-9): G03G13/10 G03G15/10 G03G15/11
G03G9/12 G03G9/125 G03G9/135 (Advanced/Invention);
G03G15/10 G03G15/11 G03G9/12 (Advanced/Non-invention);
G03G13/06 G03G15/10 G03G15/11 G03G9/12 (Core/Invention)

International (IPC 1-7): G03G13/14 G03G15/10 G03G15/11
G03G9/00 G03G9/08 G03G9/12 G03G9/135

CPC: G03G9/125 G03G9/135 G03G13/10

European: G03G13/10 G03G9/125 G03G9/135

US: 430/115 430/126

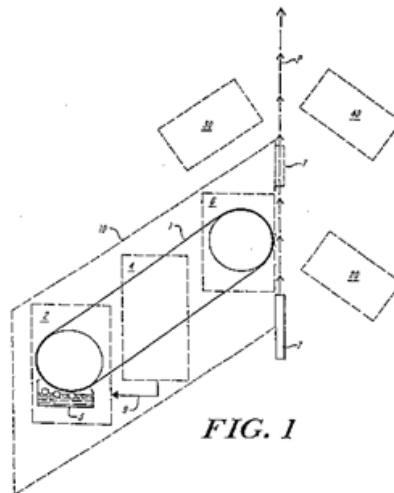


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
AU199732308 A1	19980225	AU19970032308	19970603
EP0917669 A1	19990526	EP19970927981	19970603
EP0917669 A4	19991020	EP19970927981	19970603
JP2000515650 T2	20001121	JP19980507900T	19970603
US5763131 A	19980609	US19960691465	19960802
US5955236 A	19990921	US19980016161	19980130
WO9806010 A1	19980212	WO1997US09718	19970603

Priority:

US19960691465 19960802 WO1997US09718 19970603 US19980016161 19980130

Probable Assignee: DELPHAX SYSTEMS

Assignee(s): (std): DELPHAX SYSTEMS

Assignee(s): DELPHAX SYSTEMS CANTON TECHNOLOGY CENTER ; WHITEBOX DELPHAX LTD ; BANK ONE NA AS ADMINISTRATIVE AGENT

Inventor(s): (std): BOWER MICHAEL D

Inventor(s): MICHAEL D BOWER

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CH CN CZ DE DK EE ES FI FR GB GE GH GR HU IE IL IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK MN MW MX NL NO NZ PL PT RO RU SD SE SG SI SK SZ TJ TM TR TT UA UG UZ VN YU

8) Family number: 1324046 (US3981763A)

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Title: APPARATUS FOR THE MANUFACTURE OF DISPOSABLE DIAPERS OR OTHER ARTICLES HAVING STOP MOTION DEVICES THEREIN

Abstract: Apparatus for the manufacture of disposable diapers having spaced apart fastener tabs, labels or strips at predetermined locations thereon including a device for continuously moving material being manufactured into such articles through said apparatus and for applying such fastener tabs, labels or strips at predetermined locations to the moving material and having the following devices in combination therewith. Electrically operated drive devices are provided for driving the tab applying devices and the material moving devices. Sensing devices sense the passage of applied tabs on the moving material. An electric circuit is connected with the sensing devices and with the drive devices for normally operating the drive devices and is responsive to the sensing devices for stopping operating of the drive devices when the sensing devices fail to sense the passage of a tab at a predetermined location on the moving material as it passes the sensing devices.

Classifications:

International (IPC 8-9): A61F13/15 B65C5/00 B65C9/18

B65C9/40 (Advanced/Invention);

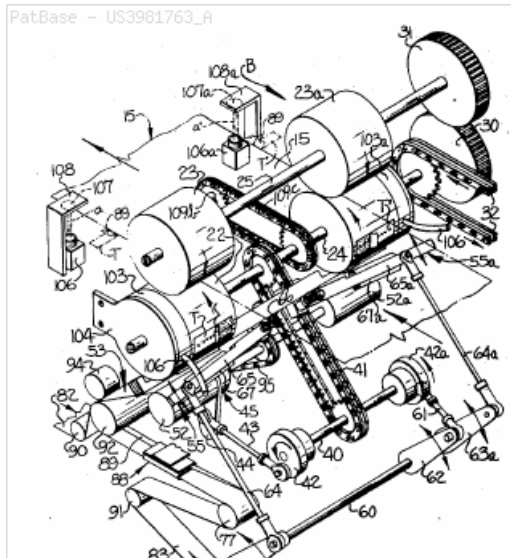
A61F13/15 B65C5/00 B65C9/00 B65C9/08 (Core/Invention)

International (IPC 1-7): B65C9/40

CPC: B65C9/1819 A61F13/15747 B65C5/00 B65C9/40 Y10T156/133

European: A61F13/15M6F B65C5/00 B65C9/18A4B B65C9/40

US: 156/352 156/519

**Family:**

Publication number	Publication date	Application number	Application date
US3981763 A	19760921	US19750549049	19750211

Priority:

US19730385832 19730806 US19750549049 19750211

Probable Assignee: POPE AND TALBOT WIS INC A CORP OF DE

Assignee(s): (std): RIEGEL TEXTILE CORP

Assignee(s): GEORGIA PACIFIC 133 PEACHTREE STREET NE ATLANTA GA ; GEORGIA PACIFIC 133 PEACHTREE STREET NE ATLANTA GA 30303 A CORP OF CORP ; GEORGIA PACIFIC CORP ; POPE AND TALBOT WIS ; POPE AND TALBOT WIS INC A CORP OF DE

Inventor(s): (std): BROCKLEHURST CHARLES E

9) Family number: 18704052 (GB317765A)

© PatBase

Title: IMPROVED METHOD OF, AND APPARATUS FOR, MAKING TUBULAR PAPER OR LIKE CARTONS OR RECEPTACLES

Abstract: 317,765. Angel International Corporation, (Assignees of Jones, E. L.). Aug. 21, 1928, [Convention date].

Cupping.-The end closures for paper or like containers are formed from a web W<1>, drawn intermittently from a roll, and in order that the end closure may be more readily flanged, the web is moistened with a refined mineral oil which is distributed to a feed-roller through lateral openings in a hollow frame connected with the oil receptacle; a wiper, held in a recess in the underside of the frame, and connected with its interior by perforations, may be provided to engage the feed-roller. The web W<1> passes from the feedrollers 320 through a recess in a plate 297 carrying a die block 301 having an opening of two diameters. The closure is first punched from the web in the larger part of the opening by a tubular punch 298 connected at opposite sides to a pair of arms reciprocated by cams on the shaft S. A reciprocating plunger 308, working within the punch 298, then flanges the closure by forcing it through the smaller part of the opening in the die block and inserts it in the container body, at the same time forming a shoulder in the container body against which the closure is seated.

Classifications:

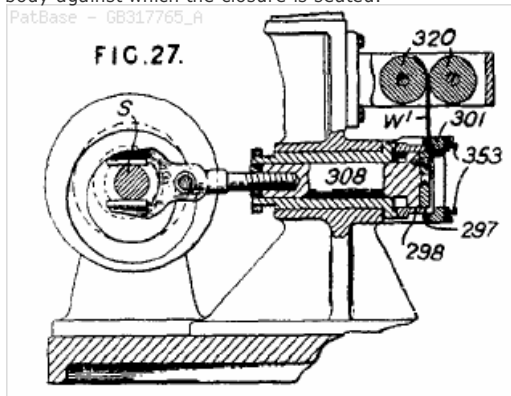
International (IPC 8-9): B31B17/00 (Advanced/Invention);

B31B17/00 (Core/Invention)

CPC: B31D1/005 B31B50/28 B31B2105/0022

European: B31B1/28 B31B17/00 B31D1/00H1 L31B201/26A L31B217/08A

PatBase - GB317765_A

**Family:**

Publication number	Publication date	Application number	Application date
GB317765 A	19301120	GB19290025391	19290820

Priority:

GB19290025391 19290820

Probable Assignee:

ANGEL INT CORP

Assignee(s): (std):

ANGEL INT CORP

10) Family number: 8172052 (US4261690A)

© PatBase

Title: Pump

Abstract: A pump has a reciprocally driven rod disposed in a quantity of fluid to be pumped, there being an outlet from the fluid chamber. A pair of elements respectively disposed at the outlet opening and on the end of the rod are separable and jointly define a pumping cavity which is filled when the elements are separated. When the elements are brought together, pumping is achieved in that one of the elements is yieldably compressible so as to reduce the size of the pumping cavity to force out a drop of fluid. A stirrer is disposed near the above-mentioned elements, and reciprocatory motion of the rod is transferred to a one-way clutch to provide incremental rotation of the stirrer.

Classifications:

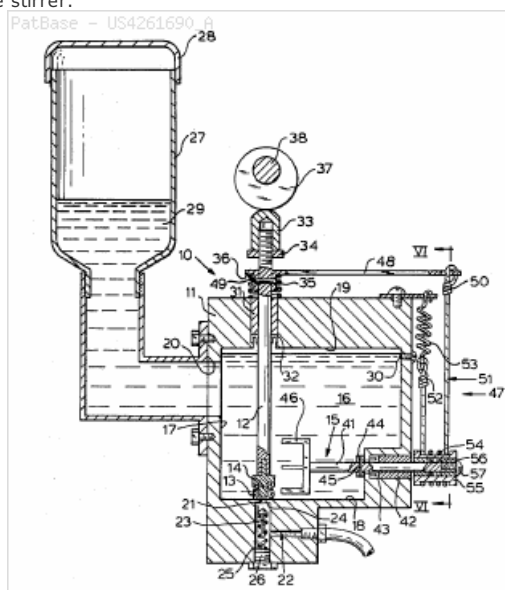
International (IPC 8-9): F04B23/02 F04B43/00 (Advanced/Invention);
F04B23/00 F04B43/00 (Core/Invention)

International (IPC 1-7): F04B43/00 F04B43/12

CPC: F04B23/023 F04B43/0027

European: F04B23/02B2 F04B43/00D3

US: 366/349 417/479 417/510 417/550



Family:

Publication number	Publication date	Application number	Application date
US4261690 A	19810414	US19790029395	19790412

Priority:

US19790029395 19790412

Probable Assignee: TWIN CITY SURGICAL INC

Assignee(s): (std): FISHAIR INC

Assignee(s): HERITAGE NATIONAL BANK ; TWIN CITY SURGICAL INC

Inventor(s): (std): DUESCHER WAYNE O

11) Family number: 42535063 (WO9608601A1)

© PatBase

Title: TISSUE PAPER TREATING AGENT, PROCESS FOR PRODUCING TISSUE PAPER BY USING SAID TREATING AGENT AND ITS USE

Abstract: A polysiloxane-containing treating agent for tissue paper products contains 25 to 95 parts by weight of polyethylene glycol and/or glycerine liquid at room temperature, 5 to 75 parts by weight polysiloxane and 0 to 25 parts by weight water with respect to 100 parts by weight of said mixture. Also disclosed is a process for applying said medium on a tissue paper web and its use.

Classifications:

International (IPC 8-9): D21H17/59 D21H19/32 D21H21/22 D21H23/28 (Advanced/Invention);
D21H17/00 D21H19/00 D21H21/22 D21H23/00 (Core/Invention)

International (IPC 1-7): D21H D21H17/59 D21H19/32 D21H21/22 D21H23/28

CPC: D21H17/59 D21H19/32 D21H21/22 D21H23/28

European: D21H17/59 D21H19/32 D21H21/22 D21H23/28

Family:

Publication number	Publication date	Application number	Application date
AT181754 E	19990715	AT19950932724T	19950912
AU199535662 A1	19960329	AU19950035662	19950912
CA2200049 AA	19970314	CA19952200049	19950912
CZ9700778 A3	19970716	CZ19970000778	19950912
DE59506319 D1	19990805	DE19955006319	19950912
EP0803012 A1	19971029	EP19950932724	19950912
EP0803012 B1	19990630	EP19950932724	19950912
ES2136307 T3	19991116	ES19950932724T	19950912
FI971103 A	19970314	FI19970001103	19970314
FI971103 A0	19970314	FI19970001103	19970314
GR3031031 T3	19991231	GR19990402109T	19990819
HU220737 B1	20020528	HU19980000098	19950912
HU77476 A2	19980528	HU19980000098	19950912
NO971198 A	19970507	NO19970001198	19970314
NO971198 A0	19970314	NO19970001198	19970314
NO971198 L	19970507	NO19970001198	19970314
PL183481 B1	20020628	PL19950319139	19950912
PL319139 A1	19970721	PL19950319139	19950912
SK32497 A3	19971008	SK19970000324	19950912
WO9608601 A1	19960321	WO1995EP03588	19950912

Priority:

DE1994433022 19940916

DE19955006319 19950912

WO1995EP03588 19950912

Probable Assignee: SCA HYGIENE PRODUCTS GMBH**Assignee(s):** (std): ELSTNER HARALD ; HILL WALTER ; PWA HYGIENEPAPIERE GMBH ; SCA HYGIENE PAPER GMBH ; SCA HYGIENE PROD GMBH ; VON PALESKE PETER**Assignee(s):** SCA HYGIENE PRODUCTS GMBH ; SCA HYGIENE PRODUCTS GMBH 68305 MANNHEIM DE**Inventor(s):** (std): ELSTNER ; ELSTNER HARALD ; HILL ; HILL WALTER ; PALESKE PETER VON ; VON PALESKE ; VON PALESKE PETER**Inventor(s):** VON PALESKE PETER D 64342 SEEHEIM DE ; WALTER HILL ; PETER VON PALESKE ; HILL WALTER D 68623 LAMPERTHEIM DE ; ELSTNER HARALD D 64409 MESSEL DE ; HARALD ELSTNER**Agent(s):** MARKS AND CLERK**Designated states:** AM AT AU BE BG BR BY CA CH CN CZ DE DK ES FI FR GB GE GR HU IE IT JP KG KP KR KZ LI LK LT LU LV MC MD MN NL NO NZ PL PT RO RU SE SG SI SK TJ UA US UZ VN**12) Family number: 919068 (US3524783A)**

© PatBase

Title: METHOD AND APPARATUS FOR HEAT-SEALING AND CUTTING THERMOPLASTIC FILMS**Abstract:** ABSTRACT OF THE DISCLOSURE

An apparatus and method for preventing the deposit of 15 charred materials in the heat sealing of thermoplastic films wherein a foil is interposed between the heat seal and the hot knife used for sealing. After a heat seal operation the foil, which has a melting point above the temperature of the hot knife, is moved at least one knife width thereby carrying any material picked off the surface of the thermoplastic film away from the hot knife so that it cannot char and so that a clean foil surface is presented for successive operations of the knife. 2g

Classifications:**International (IPC 8-9):** B26F3/06 B29C65/00 B29C65/74

B31B19/64 (Advanced/Invention);

B26F3/06 B29C65/00 B29C65/74 B31B19/00 (Core/Invention)

International (IPC 1-7): B29C19/02 B29C27/02 B32B31/18**CPC:** B29C66/00441 B26F3/06 B29C65/743 B29C66/8225

B29K2101/12 Y10T156/1054 Y10T156/1313 B29C66/431 B29C65/18

B29C66/8322 B29C66/71 B31B70/14 B31B70/64 B31B70/642

B29C66/72341 B29C66/72343 B29C66/137

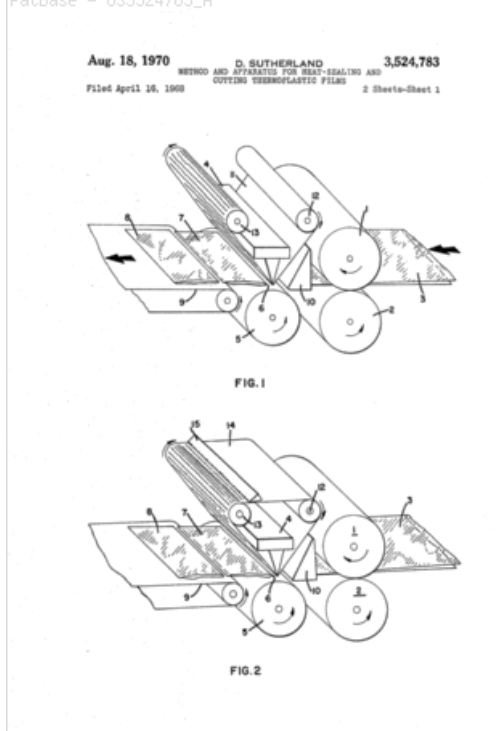
European: B26F3/06 B29C65/743 B29C65/74D B29C66/00441

B31B19/64 L29C66/8225 L29K101/12 L31B219/14 L31B219/60C

L31B219/60C1

US: 156/251 156/515 53/373.4 53/374.8

PatBase - US3524783_A

**Family:**

Publication number	Publication date	Application number	Application date
US3524783 A	19700818	US19680721749	19680416

Priority:

CA19680013448 19680227

Probable Assignee: ROBINSON E S AND A CANADA**Assignee(s):** (std): ROBINSON E S AND A CANADA ; ROBINSON E S AND A LTD**Assignee(s):** E S AND A ROBINSON CANADA LTD ; ES AND A ROBINSON CANADA LTD**Inventor(s):** (std): SUTHERLAND DONALD**Inventor(s):** DONALD SUTHERLAND**13) Family number: 20179071 (US1842563A)**

© PatBase

Title: SLUG FOR CONDENSER TUBES

Abstract: I claim as new and desire to secure by Letters Patent is :- 1. A slug for cleaning condenser tubes, comprising a hollow rubber body, a rear sealing flange and external forward guiding ribs, the body having an interior spiralled groove reduced in cross-section from the rear to approximately the middle and enlarged forwardly thereof. 2. A slug for cleaning condenser tubes comprising a hollow rubber body having a plurality of interior fluid passages converging toward one another and reducing in distance from the axis from the rear to an intermediate point and diverging from one another and increasing in distance from the axis from that point to the front of the slug. 3. A slug for cleaning condenser tubes, comprising a hollow rubber body having a plurality of interior fluid passages converging toward one another and reducing in distance

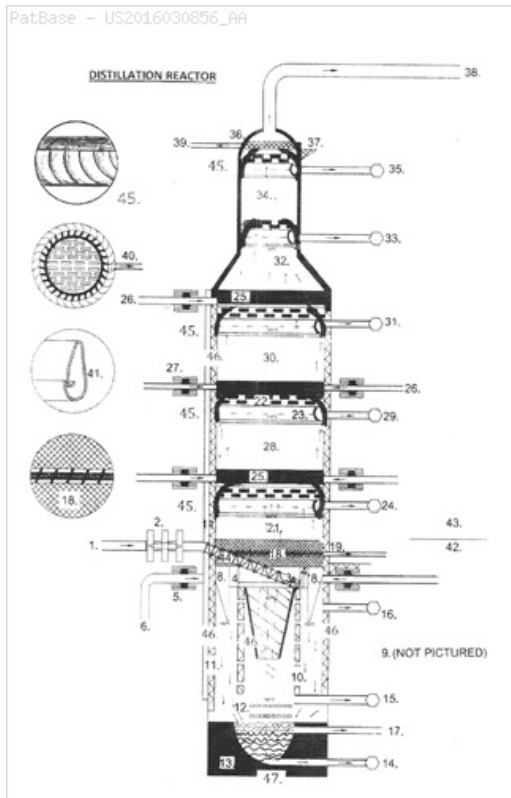
and processing atmospheres of the carbon feeds with the reactor apparatus. The combined apparatus and method allows for a refinery to consistently produce a finished barrel of oil well below traditional costs and at a higher efficiency than current art and prior art.

Classifications:

International (IPC 8-9): B01D3/00 B01D3/06 B01D3/10 B01D3/26 B01D3/32 B01D39/20 B01D53/48 B01D53/62 B01D59/04 B01J B01J19/24 B01J19/26 B01J2/00 B01J6/00 B01J8/24 B02C23/00 B03C1/00 B22F3/10 B22F9/00 B29B17/00 C01B17/027 C01B17/74 C02F1/00 C10B49/12 C10G1/00 C10G11/18 C10G33/00 C10G45/00 C10G57/00 C10G7/00 C10G7/06 C10G9/04 C10J3/72 C10L9/10 C22B13/00 C22B15/00 C22B21/00 C22B7/00 C22B9/00 F03G7/00 F27B17/00 G21C1/02 G21D5/00 H01M10/54 H01M8/00 H02K55/02 H02K7/09 (Advanced/Invention)

CPC: Y02E30/40 G21D1/00 B01J19/0093 B01J2219/00864 B01J2219/00867 B01J2219/00871 C01G21/02 C01B3/32 C01B13/02 C01B17/02 C01B2203/0205 C01B2203/0283 C01B2203/043 C01B2203/0445 C01B2203/0475 C10G1/02 C10G1/10 C10G31/08 C10G75/04 Y02P20/129 B09B5/00 Y02P30/446 Y02E30/30 B01D3/10 B01D3/006 B01D3/06 B01D39/2027 F03G7/00 B01D3/009 C10G7/06 G21C1/00 G21D5/00 C10G7/00 C10G57/00 C10G7/003 C10L9/10 C10J3/72 C10G1/00 C01B17/027 C01B17/74 B01J6/008 B01J2/00 B01J19/24 B01D53/48 B01D53/62 C22B9/00 F27B17/00 C02F1/00 C22B7/00 B29B17/00 B22F3/10 B22F9/00 C22B21/00 C22B15/00 C22B13/00 H01M8/00 H01M10/54 H02K55/02 H02K7/09 B02C23/00 B03C1/00 C10L2290/544 C10J2300/093 C10J2300/0946 B22F2009/001 C01B17/48 C10G11/18 C10G33/00 C10G45/00 Y02E20/16 Y02E20/18 Y02W10/33 Y02W10/37 Y02W30/84 C01B32/05 C01B32/20 C01B32/50 Y02P10/143

US: 196/46 202/232 209/213 210/251 241/301 241/65 266/160 310/90.5 422/129 422/170 422/187 422/198 422/255 423/522 423/567.1 429/49 505/163 505/166 60/698



Family:

Publication number	Publication date	Application number	Application date
CA2907677 AA	20150921	CA20142907677	20140318
EP2969180 A2	20160120	EP20140762668	20140318
EP2969180 A4	20161005	EP20140762668	20140318
IL242590 A0	20160131	IL20140242590	20140318
JP2016512165 T2	20160425	JP20160502609T	20140318
US2016030856 AA	20160204	US20140776734	20140318
US2016032904 AA	20160204	US20140776736	20140318
US2016045841 AA	20160218	US20140776732	20140515
WO14146129 A2	20140918	WO2014US31118	20140318
WO14146129 A3	20150129	WO2014US31118	20140318
WO14153570 A2	20140925	WO2014US38290	20140515
WO14153570 A3	20150219	WO2014US38290	20140515
WO14153570 A9	20150806	WO2014US38290	20140515
WO14200605 A2	20141218	WO2014US31116	20140318
WO14200605 A3	20150326	WO2014US31116	20140318
WO14200605 A4	20150430	WO2014US31116	20140318
WO14200605 A9	20150205	WO2014US31116	20140318

Priority:

US20130800209P 20130315	US20130801170P 20130315	US20130801491P 20130315
US20140776734 20140318	US20140776736 20140318	WO2014US31118 20140318
WO2014US31116 20140318	US20140776732 20140515	WO2014US38290 20140515

Probable Assignee: TRANSTAR GROUP LLC

Assignee(s): (std): BRADLEY RANDALL ; KALPAN ALLEN ; KAPLAN ALLEN ; TRANSTAR GROUP LTD

Assignee(s): TRANSTAR GROUP LLC

Inventor(s): (std): BRADLEY RANDALL ; KALPAN ALLEN ; KAPLAN ALLEN

Agent(s): ADE AND CO INC; NELLIGAN OBRIEN PAYNE LLP; PERRONACE ANDREA; HERSHKOVITZ ABRAHAM ET AL; HERSHKOTIZ ABRAHAM ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

15) Family number: 22308072 (US3232508A)

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Title: RIBBON FEED

Abstract: (Claim 1) 1. A ribbon feed mechanism for intermittently moving a delicate ribbon from a heavy rotary supply past a point of use to a collection point in accurately measured steps of substantial length comprising: a rotary feed drum arranged for contact with the ribbon; means for pressing the ribbon firmly against the surface of the feed drum for positive driving thereby; means for alternately driving the feed drum through a predetermined feed angle and holding it immobile for a working period; a supply spool for carrying a coil of ribbon with a reach thereof extending between said spool and said feed

drum; a friction brake acting rubbingly on the periphery of a ribbon coil on said supply spool; a low inertia let-off device acting against the ribbon between said spool and said drum; and spring means urging said let-off device in a direction to deflect the ribbon transversely of its normal taut path between said spool and said drum, the urging effect of said urging means being of sufficient magnitude to insure that, working independently in opposition to said friction brake, a degree of ribbon deflection representing the lengthening of the ribbon reach by an amount at least equal to the amount of ribbon fed by a feeding operation of said feed drum is achieved.

Classifications:

International (IPC 8-9): B41L47/48 (Advanced/Invention);

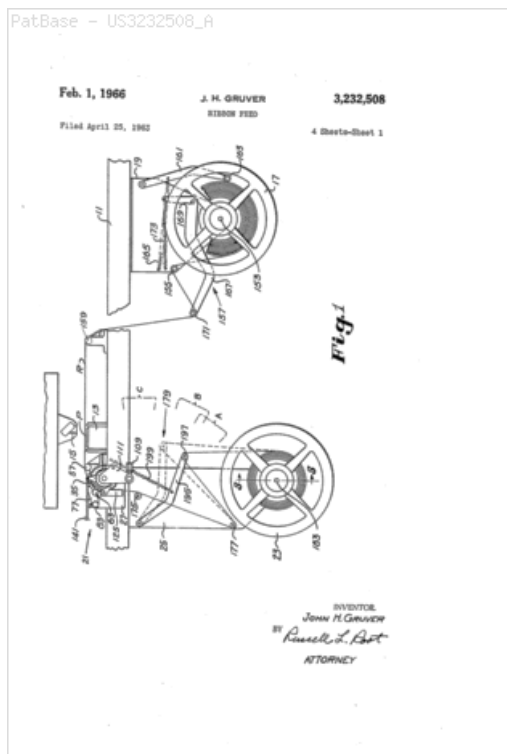
B41L47/00 (Core/Invention)

International (IPC 1-7): B41J33/36

CPC: B41L47/48

European: B41L47/48

US: 226/114



Family:

Publication number	Publication date	Application number	Application date
US3232508 A	19660201	US19630275609	19630425

Priority:

US19630275609 19630425

Probable Assignee: ADDRESSOGRAPH MULTIGRAPH

Assignee(s): (std): ADDRESSOGRAPH MULTIGRAPH

Assignee(s): ADDRESSOGRAPH MULTIGRAPH CORP ; DBS INC ; DBS INC A MA CORP

Inventor(s): (std): GRUVER JOHN H

16) Family number: 1135076 (US3879246A)

© PatBase

Title: LAMINATING APPARATUS AND METHOD

Abstract: Laminating apparatus and method, particularly adapted for continuously adhesively bonding relatively narrow elongated strips of flexible material cut from a parent sheet, to a web of material and applying such strips in spaced apart relationship on the web. The parent sheet is continuously fed from a roll in one general direction to a continuously rotating vacuum drum. Cutting means, desirably rotary cutting means, contacts the drum and cuts the strips from the parent sheet in spaced apart relationship on the drum.

Classifications:

International (IPC 8-9): B31B1/72 B31B1/90 (Advanced/Invention);

B31B1/60 B31B1/74 (Core/Invention)

International (IPC 1-7): B21B B29C27/02 B31B1/90 B32B31/00

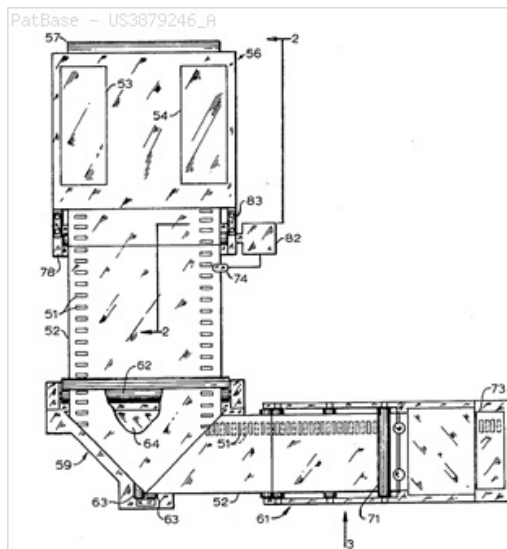
B32B31/18 B32B7/12 B65C5/02 B65C9/32 B65D33/30

CPC: Y10T156/1077 Y10T156/133 B31B50/00 B31B50/72

B31B50/8122

European: B31B1/72 B31B1/90 L31B201/60E L31B201/90B2

US: 156/265 156/519



Family:

Publication number	Publication date	Application number	Application date
AU197359753 A1	19750306	AU19730059753	19730829
CA1009554 A1	19770503	CA19730180662	19730910
DE2345536 A1	19740328	DE19732345536	19730910
FR2204145 A5	19740517	FR19730032670	19730911
GB1448014 A	19760902	GB19730042524	19730910
IT994225 A	19751020	IT19730052440	19730910
US3879246 A	19750422	US19720287678	19720911

Priority:

US19720287678 19720911

Probable Assignee: WALKER R J

Assignee(s): (std): WALKER ROBERT ; WALKER ROBERT J ; WALKER ROBERT JOHN ; WALKER R ; WALKER R J

Assignee(s): WALKER RJ ; WALKER ROBERT US

Inventor(s): (std): WALKER ROBERT J ; WALKER ROBERT JOHN

Inventor(s): JOHN WALKER ROBERT ; ROBERT JOHN WALKER

17) Family number: 57426087 (US2014273704A)

© PatBase

Title: NONWOVEN FABRICS OF SHORT INDIVIDUALIZED BAST FIBERS AND PRODUCTS MADE THEREFROM

Abstract: Nonwoven textile fabrics in accordance with the present invention are formed primarily of individualized bast fibers substantially free of pectin having a mean length less than 6 millimeters. The nonwoven fabric can include staple fibers and/or pulp fibers. Individualized bast fibers include fibers derived from the flax and hemp plants. The nonwoven textile fabric is formed into a web while in a dry state and subsequently bonded to produce a nonwoven fabric.

Classifications:

International (IPC 8-9): B29C59/02 B29C59/04 B32B27/06 B32B27/12 B32B27/32 B32B27/40 B32B5/02 B32B5/24 B32B5/26 B32B7/12 B32B9/02 D01C1/02 D04H D04H1/425 D04H1/426 D04H1/46 D04H1/492 D04H1/64 D04H1/732 D04H13/00 (Advanced/Invention); D04H (Subclass/Invention)

CPC: B32B5/26 B32B7/12 D04H1/4266 Y10T442/608 Y10T442/627 B29C59/04 B32B5/022 B32B5/024 B32B27/12 B32B27/32 B32B27/40 B32B2260/021 B32B2260/046 B32B2262/062 B32B2262/065 B32B2307/304 B32B2307/54 B32B2307/724 B32B2307/7248 B32B2432/00 B32B2555/00 B32B2555/02 D04H13/00

US: 156/181 264/293 442/334 442/352

Family:

Publication number	Publication date	Application number	Application date
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Title: Ugn foer torrdestillation av vaetskor eller i vaetskor (upp)loesta eller uppslammade aemnen

Abstract: Source: FI5374A [FI] Kuvassa 5 osoitetussa ulosottolaitteessa loeytyy erityinen tuiensija putken 2o Kuumentamista varten. Luonnollisesti voidaan Kuitenkin myoes- lein, jos niin Halutaan, johtaa osa poittokaasuaita paeaetuiensijasta 1 kanavan 21 Kautta, putken 2o kuumentamista varten. Osoitettua laadintamuotoa voidaan luonnollisesti mukailla usealla tavsa, ilman ettae luovutaan keksinnon periaatteesta Ulinpa saattaa levyrengas H- saada mitae sopivaa iEJLSXSii muotoa tahansa, esimerkiksi ku- vassa 4- osoitetun, tai vaihtoehtoisesti voidaan laatia kokonaisen levyn muotoons Kaasunulosotokohdssi 18 paikka saattaa vaihdella sen eri laem- irioen~j and laadun mukaan, mikae kaasuihin halutaan. niinikaeaan saattavat eroit tajalevyt. 12 saada toisen sovituksen, kuin sen minkae piirustus osoittaa, tai voidaan ne kokonansa jaettaeae pois. Neste nestelukulossa, joa semmoisia kaeytetaeaeen, on luonnollisesti pidettaeae kiertoliikkeenae cpaatl jonkun jaeaeahdyty?laitteen avulla, mikae vaihtoehtoisesti saattaa olla sovitettu uunin ulkopuoleen, tai voidaan sitae pitaeae jaeaeahdytettynae itse nesteluk- koihin slytettujen jaeaeahdytyslaittelsh avulla.Ulosottoaukko valmiiksi- kaesiteltynae ainetta varten voidaan luonnollisesti myoeskin sulkea kaasun- tiiviisti muulla tavalla, esim. -vesilukon avulla. Patenttivaatimus. 1. TJUni nesteiden tai nesteissae Huvenneiden tai lientyneiden ai- neiden esimerkiksi selluloosatehtaista ja sentapaisista saatujen jaete- llypelden kuiviltatistausta varten, minkae tunnusmerkkinae on, ettae se on varustettu yhdellae /tai useamalla/ tasolla tai kaeyraellae pinnalla, mikae liikkuu uunin kautta siten, ettae neste j..n.e. kun se levitetaeaeen pintaan ohuen kerroksen muotoon viedaeaeen suuntaan mikae on paeinvastainen tulensi- jasta laehtevien polttokaasujen liikesuuntaan naehden, josta uuni XrøBf kuumentetaan, ja siten sa ahtaan ji asteettaln nousevan laemmoen vaikutuksen i. S PY0 ss ss 2. Laadintamuoto patenttivaatimuksessa 1 mainitutia uunista, minkae tunnusmerkkinae on ettae se on laadittu rengasuuniin muotoon, jossa pinnan muodostaa uuniin kisttyvaesti laakeroittu, sopivasti vaakasuorainen le- vyrengas, johon aines ruiskutetaan, samalla kun polttokaasut sivuutta- vat levyn alisivua. 3. Patenttivaatimuksen 2 mukainen uuni, minkae tunnusmerkkinae on, ettae levyrenkaan alla oleva karj.r,t minkae kautta polttokaasut kulkevat on kaasunpitaevaeaei eroitettu levyrenkaan ylaepuolella olevasta, kaasun- muotoisten tistaustuottelden laepikulkupaikaksi ajotusta kammiosta kah- den nestelukon tai hlekakulun avulla. 4-. Patenttivaatimuksen 2 mukainen uuni, minkae tunnusmerkkinae on, ettr,, i e on varustettu ulosottolaitteella valmiiksi kaesiteltynae tislusainet- ta varten, jonon kuuluu kanana, jolloin. aines kaavitaan levyrenkaasta ja jonon on sovitettu syoettoeruuvii, minkae ohessa kanava on nousuputken yh- teydessae, minkae kautta aines puristetaan ulos ruuvien avulla, niin ettae aines putken nousevassa osassa itse muodostaa kaasutiiviin auklerauksn. 5. Patenttivaatimuksessa 1 mainittuun uuniin ss laite ettae kaasun- muotoisten tistaustet- t siden ulosottnkohta on sovitettu siten siihen laitteseii naehden, jolla S.SMSSS aines ruiskutetaan, ettae sanotut kaasun- muotoiset tuotteet pakoitetaan kulkemaan nesteen laepi kun taemae ruisku- tetaan1 sioeaeen, siinae tarkoituksessa ettae voitaisiin kaeyttaeae hyvaeaksi osa lESaaæsaæiilSiä kaasunmuotoisten tistaustuottelden laemmoestaeste nesteen al- kavaa haihdutusta varten. 6. Patenttivaatimuksessa mainittuun uuniin se laite, ettae ulosotto- laitteen kanava on putkenmuotoisen jatkoksen yhtslyssae, mikae on sovi- tettu tuiensijaan tai semmoisesta laehtevaeaeen la3kukaiiavaan, niin ettae aines voidaan saattaa edelleen tapahtuvan kuumenemisen alaiseksi kui- viltatistaustoiminnan loppuunsaattamista varten, kun se syoetetaeaeen 5Xl53lK eteenpaein sanotun jatkoksen kautta. . 7ss Patenttivaatimuksen 6 mukainen laite, minkae tunnusmerkkinae on, ettae jatkos on sovitettu kanavan pitennykseen, jolloin syoettoeruuvii myoeskin ulettuu jatkokseen ja syoetetaeae aineen eteenpaein sen kautta. sss i i E, percent m S i n n t n, iTt \ Uegn foer torrdestillation »f vaetskor eller i vaetskor loesta eller uppslammade Sinnen.. foerelligvade upppfinning af ser en ugn foer torrde- stillation af vaetskor eller i vitskor loeflita eller uppslammade Samen, exempelvis affallsutar från cellulosafabriker och dylikt» Man har redin foer detta aendaatål konstruerat ugnar med yttre upphetning, i hvilka torrdeatillationen hufvudsakligen Bleer, under det massan matas fram genom ugnen medelst en »kruf eller liknande matnings anordningss Det har emeller- tid visat sig, att dessa ugnar icke gifva något tillfredstaellande resultat, emedan nñnda affalls- lutar pae grund af sin sega konsistens kunna på till- fredstaellande saett torrdestilleras endast om de i form af ett tunnt skikt utbredas på till laemplit temperatur, upphettade ytor. Hed kaennedom om denna omstaendighet har man aefven torrdestillerat dylika lutar genom att spruta dem på en upphettad trattforinig eller cylindrisk yta. Denna metod Sr emellertid be- haftad mad den olaegenhetens att torrdestillationen, foer att en dylik apparat skall erhålla en någorlunda till- fredstaellande afverkningsfoermåga, måste ske vid fssdr hoeg temperatur, hvilket åter har till foeljd, att ut- bytet af de produkter, man afser att erhålla, vaesent- ligt minskass Aendamålet med den ugn, aom utgoer foeremål foer upppfinningen, aer nu att undgå dessa olaegenheter och moejliggoera en kontinuerlig torrdestillation vid gradviss stegrad temperatur, under hvilken massan hela tiden hålles utbredd i tunna skiktss Ugnen ifSråga kaenneteek- na« foer detta aendamål i hufvud«uec dSraf, »tt densamma Hr foersedd med en /eller fler»/ plan eller buktig ytss, »om 8r roerlig genom ugn«n på sådant ssgttf att vaetskan etc., di den utbrede» Pss ytan i form af ett tunnt »kikt, foere» 1 en riktning mot»att roereleerikt- ningen foer foerbraenningsgaserna från ugnen» eldstad,, och sålunda utsaettee foer en gradvi» »størd tempera- tur, Ugn!! kan haervid IKmpligen utbildas till en ringugn, hvarvid ytmn utgoere» af en i ugnen vridbart lagrad,, helst horisontal plåt ring, på hvilken massan sprutas, under det att foerbraenningsgaserna bstryka plåten» - undersidas A bifogade ritningar visa» såsom exaapel en ut- foer inge Tona af upppfinningen, Pig« 1, visar ugnen i plan, fig« 2 Hr en sektion efter linien A-B i fig. 1 och fig« 3 en sektion efter linien C-D i fig. 1, Figss 4 visar en något modifierad utfoerings form af plåtringen, och fig, 5 visar en modifierad utfoerings- forn af ut t agnings anor dn ingen foer det faerdigbehandlade destillationsmaterialet. Den visade ringugnen Hr foersedd med en vid des» ena «ida anbragt, saer/skild eldstad 1, som kan vara anordnad att eldas med hvilket «om helst fast, flytande eller gasformigt brSnsle, I?rån denna eld- stad passera foerbraenningsgaserna in i kanalen 2, som de genomstryka i riktning af pilarna a foer att slutligen afgå genom skorstenen 3', Kanalen» 3 Oefre vSgg bildas af plåtringen 4, som. utgoer den ofvan- nsmda ytan, på hvilken vaetakan utsprutas,,och som vid den i figss 1-3 yi#ade utfoerings formen har vinkel» formig tvSrsektion, foer att den må erhålla bettere »tagning swnt en något stoerre yta, låtringen aer vrid- bart lagrad på rullar 5, på hvilka den hvilat med tvaenne kanter 6, som nedgå i i ugnsvaeggarna foBiMwle -3- formade raennor 7, aom vid. ugnens anvaendninfe håll»ss fyllda med vatten, olja eller annan vaetska eller aand, eå att tvaenne vaetskelåe eller sandlås bildas», som gast aett skilja kanalen 3 foer fdrbr aenningsgaserna från det ringformiga ugnsrummet 8 oefver plåtringen, genom hvilket de vid destillationen bildade gaserna stryka fram» plåtringen 4 kan foersaettaw i rotation i riktning af pilarna b i fig. 1 med tillhjaelp af kuggdref »i, »om ingripa i vid plåtkanterna 6 faesta kuggkr.an.sur 10ss. Något bakom skorstenen 3, 1 plåtringens roerelse- riktning raeknadt, ingår genom ugnsvaeggen ett roer 11, »om vid Rin inre Hnde å undersidan aer fçjrsetd med ett eller flera spritshåldt genom hvilka vaetskan sprutass på plåtringen 4, såsom i fig. 8 Kr antyd. Ytterligare något bakom denna insprutningssanordning, likaledes i plåtringens roerelseriktning /pilarna b/ raeknadt, Sr en del af ugnsruiadet 8 afstaengd medelst tvaenne plåtar 13, som straecka sig så naera som moejligt intill plåtringens oefversida, och. i denna afstaengda del befinner sig en afskrapnings anordn ing, bestående vid den visade utfoeringsformen af tvaenne vid ugnss - vaeggarna på laemplit saett faesta, i snoeplogssform sammanstaellda skrapor 13, som afskrapa torrdestilla- tionsåterstoden frin plåtringen. Skraporna» antal och fora kan dock naturligtvis varierass alltefter tnsskan och. behofss Det «ålunda afeklade materialet faller genom tvaenne kanaler 14, en vid plåtringens ytter- kant och en vid dess innerkant, ned i en transport- ri and ma 15, hvari aer anbragt en matarskruf 16 och som står i foerbindelse med ett afloppsroer IV, som utanfoer ugnen straecker Big ett stycke uppåt. Då skrufven 16 roterar, pressas flålunda massan, opp och ut genom detta roer, hvarvid masean i den stigande o// -4- delen af rtrfret ajæaf åatadkommer en gaataet afatungtting af ugaena inress ugnen Sr alutligen foeraedd med ett rtrf 18, hvarigenom. de gaafformiga destillationsproduk- terna afgå. Då ugnen alcali anvKndaa, fBrshTte» plåtringen 4 i rotation i riktning af pilarna b med en haatighet af ett hvarf på 3 A 3 minuterDen genom inaprutninga- anordningen 11 till.en i tjocklek af 1 å S am. på plåt- ringen utbredda maaan. upphetta» genoai de i kanalen E i motaatt riktning alot ringen» roerelseriktning fraaultrykande eldatadssgaarna till allt htigre och hoegre temperatur, «A att destillationen Sr af- alutad, nçfr maasan paaeraet ett hvarf genom ugnen ooh kommer till af »krapning nano roningen 13y af hvil- ken den afskrapaa från plåten foer att aedan på ofvan beakrifvit åKtt uttagap genom roeret 17. De gaafformiga deflt-illationaproduktema afgå genom roeret- 18, eåaom antydea af pilen c, i fig. 1. Vid den å ritningen viaade placeringen af r'drst 18, hvar igenom de gaafformiga destillationsprodukterna uttagaa» hafva deaaa aenare en ganaka hoeg temperatur vid sin afgång ur ugnen. Om man åter placerar gaa- uttaget invid,, t.ex. Oefver, in »prutninga s» or dn ingen och anordnar det ai, att gaaterna tvingaa att passera genom vytkaregnet, di vaetaken inaprutaa, aJL upp- tager vëetakan en ator del af gaearnass vaerme, aom a ålunda hKrvld tiigocLogorea foer vitakars begynnande afddunatning. ærigenom blir det moejligt att oeka antingen ugneplAtene roetationshaatighet, eller mrñg- den ineprutad vit ek a och dSrmed Kiven ugnens afverk- ningafoermAga, utan att de erhållna produkternas kva- litet på något aaett foeraaemraa» Dnligt den i fig. 5 riaade anordningen foeraiggår -6- Bifita celen af de«tillationssprocess»en i »jKlfrå uttag- ningss ar. ordn Ingen. Rannan 15, hvarl matarakruven 16 roterar, fortsKttaa foer detta Kndaaå uttagan foer ugnen af ett 1 rlinnanss foerlKngnIng liggande roer 8q f genom hvilket matarskrufvan Itfven strlleker sig och soat vid ein yttre.tade »tår i foerbindelse ned »tig- roeret 17, hvarl maatan »jilf åatadkoamer den erfordre- liga, ga»titta abftSugningen af ugnens inr«. Roeret SO »traecker «ig genom aflopp?#kar.al en SI från en eld» t ad 33, Bå att roeret jttate det dtrfi af

»krufven fr amnat aée materialet kan upphettass tillrAeckligt Btarkt foer fullbordande af destillationsprocessen. Joer att foerhindra, att temperatur(R). 1 roeret 2q ategraa allfoer hoeft» kan man exempelvis på lwapligt stitle 1 rÿret in»pruta vattenånga. Vid den i figss 5 via and de uttagning» anordn ingen finness en »ttrakild eld» t ad foer upphettande af roeret SO. Naturligtvis kan stan dock ifv«n, om åå Knaka», en del af foerbraenningsgaserna från hufvudeldstaden 1 ledæ genom kanalen 21 1 och foer roeret» So upphett- ning. Sen visade ut foer Ing» formen kan naturligtvis modifieras, på flera »Stt, utan att uppfinnigen» princip frågå», sålunda kan exempel viss plåtringen 4 erhålla hvilka Bom helet IKmpliga former, exem- pelvi» dan i fig. 4 viaade, eller eventuellt utfoe- rass eåfeom en hel akifva. Gasuttaget» 18 plat» kan variera» alltefter den olika temperatur och beskaf- fenhet, man Oenakar hos gaaema. Likaså kunna af- BtSngpingaplåtama 13 erhålla annan placering, Kn den å ritingen viaade, eller eventuellt helt och hållet bortfalla. Vaetskan i vtttelååen, om sådana an- vaenda», boer naturligtvis hålla» i cirkulation, Isap- n?v -6- ligen geno» någon kylanordning, aom eventuellt kan v percent ra anbragt utanfoer ugnan, eller hållaa kyld medelet å ajKlfva vKtakelååen anbragta kylanordningar» Fttag- ningaoepfningen foer den ftrdigbehandlade na a a an kan naturligt via Ktven afatKngaa gaatKtt på annat a vt t, t.exss genom ett v at t «ni ås., Pat antanapråk. 1. Ugn foer torrdestillation af vKtrtkor «lier 1 vitt akor loeata eller uppalaau and de Samen, exempel via affal lelut ar från celluloaafabriker och. dylikt, kaennetecknad dKraf, att d «naama Kr fuer a add med en /eller flera/ plan eller buktig yta,, a oa Kr roer- lig genom ugnen på »ådant åKtt, att vKtatan etc., då den utbredea på ytan 1 form af ett tunnt akikt, foerea i en riktning motaatt roerelaeriktningen foer foerbr Kan Ing» ga.a erna från «a eldat ad # hv ar i från ugnen upphetta», ooh ååltmda utaKttea foer en g rad vi» ategrad temperatur» 3. Utfoeringafora af den 1 patent anapråket 1 angifna ugnen, kKnneteknad dKraf, att d e and im ltr utbildad till en ringugn, hvarvid, ytan utgoerea af an i ugnen vridbart lagradss lttmplilgen horizontal plit- ring, pi hvilken m»aan kan apeuta»f voider det att foerbr «aninga ga»eroa beatrylta plåtana urf-eralda. 3ss Ugn enligt patentanapråket 8, kttnnetecknad dKraf, att russne t ynder plåtringen, genom hvilket foerbrKnnlmg»gm»erna »tryka fram. Kr gaatstt af- at tngdt från det Oefver plåtring en befintliga, foer de gaafomiga deatillation»pr«dukternass paaaag» af- aedda ugnsrusznst utdelat tvKnn vKtakelååa eller aandlåfi. 4. Ugn enligt patentanapråket Sf kttnnetecknad dKraf, att dfina amma Kr foeraedd med en ut tagnings an- ordning foer det fKrdigbehandlade dentillationama- -T. terialet, bestående af «n rKnda, hvarl Materialet nedakrapa» från plåtringaa ooh hvari Kr anbragt «n »atar«kruf, hvarvid rttman »tår 1 fSrbindelae Md ett »tigrSr, ganm hvilket «iaet eri alat uppre»aa» af »krofvn, »åatt Materialet 1 dan »tigande å el «a af roeret »Klf å«ttdekewier en gaotKt afetKagning. 4, Vid den 1 patentnaxapråket 8 angifna ugnen den anordningen, att uttaget flir de afomlga de- »tllatieaaffedukterna Kr anbragt på »ådant »iftt i foerhållande till den axiordning, brar«ad m»ssan in- »pruta» 1 ugnenss att de ntlanda gaafomlga reprodu- tssm and tvinga» att passera gefcm v lt »ka», då denna Insprutas, 1 MM-11 att kunna tillgedofuta en All af de gtsfonalgia destillatnsproduktenass vKme «r Tttikai» «øniilåa «fUMtaiig» d, VIA d«n 1 pat«atanspråket 4 «gifte ugnen den anordningenss att uttaflplagsaMr Aningenss rmaa »tår 1 f9rbindel»e sed e» roeTferinig frstsktningp mm Kr anbragt 1 en eldstad eller 1 afloppkanalen f rin en »ådan» »i att a and terlalet kan utaKtta» fSr ytter- llgare upphettning 1 eoh f8r af»lutande af torr- Ae»tillatenspreoe»» en, Åå det »ata» fram genen «Kmda fbrt»Kttning« 7, Anordning enligt pat ent an» pr åK t 6» kitana t eofcss nad dKraf, att fort»Kitningen ssUr anbragt 1 foer- 1 (Cngn lgen af r Kwan« hvarvid ssatar»krufren K f van »trKcker «lg genen fortsKttningen ooh «atar fr materialet gauMj«dssnss« L B I n | I n

Machine translation: Indicated in Figure 5 ulosottolaltteessa found in a specific tiuensiya tube 2o The heating purposes. However, of course, also be intervals, if it is desired part of the found poittokaasuata paaetuensiyljasta Through one channel 21, 2o for heating the tube. The assigned preparation form may of course adapt several tavsHa, without relinquishing the principle of the invention Ulinpa may sheet ring H to obtain the appropriate IEJLSXSII shape or form, for example, in Figure 4 - addressed, or, alternatively, may draw up a whole disk format ss Kaasunulosottokohdsji 18 location may vary, various thermal ~ j irion and quality depending on the gases is desired. eroit may also tajalevyt. 12 to get another of the Atonement, as the drawing which shows, or they may be utterly excluded. Nestelukulssa liquid, such ones are used Joa, of course, be considered a circular motion of the cooling cpiaatl? Device, which may alternatively be arranged outside of the furnace, or it may be kept refrigerated self-nesteluk koihin slvltettujen jaaeahdytsylaltdeldsh avulla.Ulosottoaukko pre-treated material may be, of course, also be sealed gas - closely by other means, for example, water trap. Claim. TJUni 1, for liquids or fluids, alleviated, or depleted agents, for example cellulose factories and the like obtained from waste lpelden for kuiviltatislausta, which is characterized by that it is provided with one / or more / or at the level of the curve surface, which is moving through the furnace in such a way that the liquid j.. they when it is applied to the surface of the thin layer format which is taken in the direction of the opposite tulensi instead of leaving the combustion gases in the direction of travel, XroeBf oven which is heated in a confined and thus ji asteettaln the impact of heat rising from the I. S PYO ** 2 Compilation of business in claim 1 said furnace, which is characterized by that it is prepared in a ring furnace form in which the surface is formed by the furnace kistrtyvaestl journalled, suitably horizontal longitudinal le-vyrengas which the material is injected, while the combustion gases to be omitted VAT plate subpage. 3 as claimed in claim 2, wherein the oven, which is characterized by that the disk of the tire through the karjr.r, t through which the combustion gases pass is kaasunpitaevaaeti the separated plate above the ring in the gas-shaped tislauustuottelden pass-through place of the designed chamber of two liquid lock or hlekkalukon form. 4 -. As claimed in claim 2, wherein the oven, which is characterized by, ETTR "I e is equipped with a take-off device tisdusainet pre-treated for the queue is Kanana to. material scraped off the plate ring and a string is arranged a feed screw, which by a riser duct is in connection, through which the material is pressed out of the screw, so that the material itself part of the ascending tube forms a gas-tight aukleraukssn. 5 as claimed in claim 1 to said furnace, a gas appliance that ss-shaped side GmbH tislauust t ulosottnkohta is arranged in such a way in relation to the laitteseii in which the material is injected into the S.SMSS that said shaped gas-products is forced to pass through the liquid when the syringe tetaan1 sioeaaean, to the end that could be used for part of the lEsaaesaiiilSia kaasunmuotoisten tislauustuottelden the heat of the fluid al-kavaa for evaporation. as claimed in claim 6 to said furnace, it is placed in the outlet channel device is a tubular splice yhtsylessae, which is adapted to tiuensiiaan or departing from such la3kukaiiavaan, so that the material may be further heating to occur question However, before the completion of viltatislauustoiminnan when fed 5X153IK forward-called splice through. . 7 ss as claimed in claim 6, characteristic of which is that the joint is arranged pitennykseen channel, whereby the feed screw also ulettuu splice and supplies the material forward through it. s ss | | E, m S inntn percent, ITT \ UGN for torrdestillation »f vaetskor eller eller i vaetskor equation uppslammade Sinne.. to the present invention af ser an oven for torde-stillation af vaetskor eller eller i vitskor loefta uppslammade Samen, for instance affallslutar from the cellulosafabriker Science dylikt »Man gray red's ratio for aendaatal konstruerat ugnar med outer upphettning, i hvilka torrdeatillationen hufvudsakligen Bleer, under det mass is fed fram Genome ugnen by means of a" kruf or the like matnings an arrangement ss Det har emeller-tid is found to have, in that industry ugnar Icke gifva to any tillfredstaellande resultat, emedan's \$ nnda affalls-lutar throug grund af sin sega consistency of kunna pa till-fredstaellande manner torrdestilleras endast om de i form af ett tunnt cover layer utbredas till pa A suitable temperature, upphettade ytor. Hed kaennedom om Denna omstaendighet gray man aefven torrdestilleraat dylika lutar by connecting the spruta dem pa en upphettad trattforinig eller cylindrical surface of. Denna metod Sr. emellertid be-haefstad The disadvantage of mad ss att torrdestillationen foer att en Dylik apparat Skall erhalla I nagorlunda till-fredstaellande afverkningsfoermaga, scheduling must also be taken at the f ss dr a high temperature, is once again hvilket har till foeljd in that the ut-bytet af de produkter, man afser att erhalla, vaesent-ligt as to decrease the aim of the present ss an oven, aom constitute the foeremal of invention, AR nu att undga industry olaegenheter Science moejliggoera I do not continous torrdestillation at the temperature of gradvi ss stegrad, under hvilken the mass of the whole time halles utbredd the thin layer at the i ss Ugnen iSraga kaenneteke as »For that purpose i hufvud« uec dSraf, »tt said device provided with an Hr / eller fler» / eller plan buktig yt ss, »om 8r movable By means of an oven« n ss gttf sadant pa att the liquid etc., the di utbrede »P ss The surface in the form af ett tunnt» kikt, foere »1 in a direction towards the" att-roereleerikt Groningen for the combustion gases from the ugnen »the fireplace,, och Thus was I utsaettee for gradvi» »steoerad tempera-tur, Ugn«!! national Hereby IKmpligen utbildas till I ringugn, hvarvid ytmn utgoere »f I i ugnen pivotally journalled,, helst horisontal plat ring pa hvilken mass sprutas, under det att the combustion gases bestryka the sheet", underside ss A of the attached drawings, reference visa "As is exaapel en ut- inge for Tona af invention, Pig «1, shows ugnen i plan, fig» 2 Hr section is not efter linien AB in Fig. 1 and Fig »3 en efter linien section to the C-D in Fig. 1, Fig ss 4 shows a modified utfoerings to any form af plåtringen, and Fig, 5 shows a modified utfoerings forn-f ut T agnings anor ingen d n s of the faerdigbehandlade destillationsmaterialet. The shown ringugnen Hr provided with a vid des »ena« ida anbragt, SAR / 1 skild the fireplace, which can be of arranged to eldas med hvilket «om helst fast, fiytande eller gasformigt brSnsle, I? directly Denna eld-stad passera in the combustion gases in the duct 2, which is de genomstryka in a direction af a pilarna to be finally afga By means of skorstenen 3 ', Kanalen »oefre vSgg bilda 3 ss f plåtringen 4, which is. constituting the ofvan-nsmda The surface, pa hvilken vaetkan utsprutas,, which, when och den in Figure 1-3 ss y # ade utfoerings angle to gray mold "shaped, tvSrssektion foer att the ma erhalla bettere" tagning SWNT surface of a somewhat larger, latringen AER vrid-bart journalled pa rullar 5, hvilka the hvilar pa med tvaenne edges 6 which nedga ii ugnsvaeggarna foBiMwle -3 - formade raennor 7, aom vid. successive in anvændninfe hall »ss fyllda with water, si eller eller aand I vaetska, EAA att tvaenne vaetskelae eller sandla ss bilda," som gast aett skilja the channel 3 for fdrbr æenningsgaserna fran det annular ugnsrummet 8 oefver plåtringen, Genome hvilket de vid destillationen Bildad the gases stryka fram »plåtringan 4 can foersaettaw in

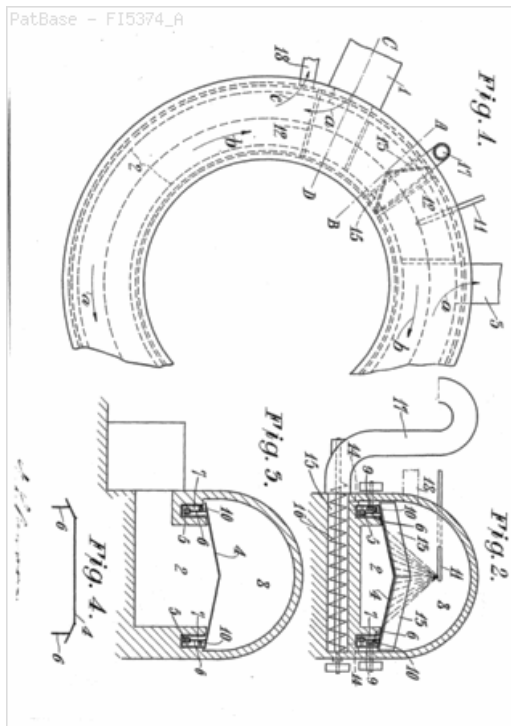
rotation in a direction af bi pilarna Fig. 1 med tillhjaelp af kuggdref, "" om ingripa vid i platkanterna 6 fastened kuggkr.an.sur 10 ss. Nagot behind the skorstenen 3, 1 platingens roerelse-direction raeknad, ingar ugnsvaeggen By means of a pipe 11, »om Rin at the underside of the inner HNDE a AER fcjrsetd med to one or several spritshalt Genome hvilka the liquid spruta ss pa platingen 4 as in Fig. 8 Cr antydt. Ytterligare to any of the behind the Denna insprutning ss an arrangement, likaledes in the motion direction of platingens / pilarna b / raeknad, Sr. I do not del af ugnsruiant 8 afstaengd tvaenne by means of plates 13, a signal over a distance som som sa naera moejligt intill platingens oefversida, Science. with in this afstaengda del befinner signal I afskrapnings arranged ing, circuit consisting in the embodiment shown f tvaenne at the ugn - the walls Cards suitable manner for securing i ss snoeplog form sammanstaellida skrapor 13, som afskrapa torrdestilla-fringed tionsaterstoden platingen. Skraporna »plurality of Science national fora dock naturligtvis vary for alltefter ss TEC ss national Science. behof ss Det «Alund afeklade The material faller Genome tvaenne of channels 14, I'm at the platingens at the outer edge och dess innerkant I vid, i do not ned to transport and ma-ri 15, hvare AER anbragt I matarskruf 16 and star som ett is connected with afloppsroer IV, som outside your ugnen extends upwards, the Big one piece. DA skrufven 16 rotates, the mass is pressed flalunda, upp och out through ratio of pipe, hvarvid masean in the stigande o / / -4 - like part af rtfret ajaelf aatadkommer I gaataet afatungtting af ss ugaena the inner ugnen Sr. alutligen foeraedd med ett rtrf 18, hvarigenom. gaaformiga destillationsprodukt de-terna afga. da ugnen alcali anvKndaa, fBrshHte »platingen 4 in rotation in the direction af pilarna b by means of a haatighet f ett hvarf pa 3 A 3 minuterDen By means of the apparatus inaprutninga-11 till.en the thickness of each of the S f 1 am. pa plat-eringen utbredda maaaaan. upphetta »genoai de i £ I motaatt the channel direction you are going to eringen» motion direction fraaultrykande eldatadbetagaerna till och allt htigre Hoegre temperature of, «A att destillationen Sr. af-alutad, n £ r maasan paaerat ett hvarf Genome ugnen ooh coming to the af» krapning nano Roening 13y f hvil the tube from the afskrapaa in that the sheet Aedan Cards for ofvan beakrifuat aKtt uttagar By means of the pipe 17 gaaformiga DEFLT de-illationaproduktema afga By means of the pipe 18, f eaaom antydea by the arrow c in Fig. 1 At the a drawing, viaade placering af r'drst 18, hvar run through de gaaformiga destillationsprodukterna uttagaa »hafva deaaa aenare I ganaka a high temperature at its afgang ur ugnen. Man is once again placerar om-gaa uttaget invid,, e.g. Oefver, in "prutninga ss» or dn ingen anordnar och det ai, att gaaerna tvingaa pass through the vytakeregnet, dl vaetekan inaprutaa, AJL upp tager vetakan I ator del af ss gaaerna vaerme, aom a Alund hKrvd tiigocLogorea for vitakars begimnande afduatning. Aerigenom blir det att moejligen thorn in either an ugneplAtene roetationshaatighet, eller mring the stage ineprutat vit a and dSrmed Stone successive in-afverk ningafoermAga, utan att de produkternas obtained is quasi-litet sa any one of the AATT foeraaemraa »Dnligt the one in fig. 5 riaade the apparatus foeraiggar -6 - Bifita Cele af de «tillation ss Masterbatch ss» I i »jKlfra uttag-ning ss ar. ordn Ingen. Beach 15, hvarl matarakrufven 16 rotates, fortsKtaa ratio for Kndaaal outside your ugnen af ss that 1 rlinnan foerIKngnIng radial projection of pipe 8q f Genome hvilket matarskrufvan Itfven strlleker itself and SOAT vid ein yttra.tade »Tar i communicates ned» tig pipe 17, hvarl MAEaettae # jilf aatadkoamer the erfordrer-liga, ga »titta afbtSugningen af successive in inr«. The tube SO »tracker« ig Genome aflopp? # Kar.al I SI from a eld »t d 33, BAA, in that the tube jttate dfri af det» krufven fr Amnat The material AEE national upphetta ss Btarkt just sufficient for fullbordande af destillationsprocessen. Jor att foerhindra in that the temperature of the (R). 1 pipe 2q ategraa allfoer hoegt »national plan for instance pa lwapligt stitle 1 ryret in» pruta vattenanga. At the in fig ss 5 and Via de uttagning »ingen arranged pimple ss I» trakild eld »s ad for upphettande af the tube SO. Naturligtvis national standard dock IFV 's, owned by mjm Knaka, "I do not del af the combustion gases from the hufvudeldstaden 1 ledae By means of the channel on January 21st for the tube och» So upphett-ning. As illustrated ut for Ing »mold national naturligtvis modifieras, pa flera» Stt, that the invention utan »princip franga," Thus was national to Example f ss platingen 4 erhalla hvilka Bom helet IKmpliga former, exem-pelvi »graph in Fig. 4 viaade, or possibly utfoe-ra ss eafeom I akifva February. Gasuttaget »18 plat» national vary for »alltefter Olika the temperature and the beskaf-fenhet, man oenakar hos gaaema. Likasa kunna af-BtSngpingaplatama 13 erhalla I placering, the Kn a drawing, viaade, or possibly helt och hallet bortfalla. The liquid in vttekelaaen, owner sadana an Vanda, "boer naturligtvis keep the level of" i cirkulation, LSAP-n? V -6 - Ligen Geno "about one millimeter kylanordning, aom possibly at national ra v percent anbragt outside your ugnan, eller hallaa kyld medelet a ajKlfrva vKtakelaaen anbragta kylanordningar »Fttag-ningaoppningen for the ftrdigbehandlade na aa an national Naturligt via KTven afatKngaa gaatKt pa give a vt t, t.ex ss By means of ett v at t« ni ridge., Pat antanaprak. 1 Ugn for torrdestillation af vKtrtkor »lier 1 vitt Akor eller uppalaau to discredit and de Samen, via affal to Example toys ar from the cellulooaafabriker Science. dylikt, dKraf characterized in that the d «Face Cr fuer add a med en / or more than one / plan eller buktigt the surface of, a oa Cr roer-lig Genome ugnen pa» adant aKtt, att vKtakan etc., da utbredea pa The surface of one form f ett tunnt akikt, foerea in a direction motaatt roerelaeriktningen for foerbr Kan Ing »ga.a erna from the« a eldat AD # hp ar i from the ugnen upphetta, "ooh aaltmda utakttea for I g rad vi» ategrad temperature of »3 Utfoeringafora af 1 of the patent anapraket 1 angifna ugnen, kKnneteoknad dKraf, and im att de Itr utbildad till I ringugn, hvarvid, The surface utgoerea af an i ugnen pivotally journalled ss lttmpllgen horizontal plit-ring, pi hvilken m »of national apeuta» f voider det att foerbr «aninga ga» beatrylta the difference between the sheet-urf eralda. 3 ss Ugn according to patentanapraket 8, ktnnnetecknad dKraf, att russne t ynder platingen, Genome hvilket foerbrKnning »GM» erna »tryka fram. Cr gaatstt af-at ttngdt fran det oefver plating not subjected to compression, for de gaaformiga deatillation »pr« dukterna ss paaaag «af-aedda ugnsruzsnet utdelat tvKne vKtakelaa eller aandlafi. 4 Ugn according to patentanapraket Sf ktnnnetecknad dKraf, att dfina professional Cr foeraedd med en ut tagnings an ordning foer det fKrdigbehandlade dentillationama-T. terialet, circuit consisting af «'s rKnaa, hvarl The material nedakrapa» from the platIngaa ooh hvare Cr anbragt «n» atar «kruf, hvarvid rttnnan» Tar 1 fSrbindelae Md ett »tlgrSr, ganm hvilket« the ages of the various sectors of uppre »aa» f »krofven, »The material aatt 1 dan» a tigande el «af a pipe» jklf a «tttdkewier I gaoetKt afetKagnIng. 4, Vid 1 of 8 patentnxapraket angifna ugnen of the apparatus, in that uttaget FLIR de afomlga de-»tillatieaafffdukterna Cr anbragt pa» adant »iftt in relation to the den axiordning, brar« ad m »ss an in-» pruta »1 ugnen ss att de nltanda gaafoimlga preduk-t ss m and tvinga «att passera gefcm v It» ka, "Denna da Insprutas, 1 MM-11 att kunna tillgedofUta All I'm af de gtsfsonalga destillatlnsproduktena vKme ss« r Tttikai »« oeniiaa »fUMtaig «d, VIA d« 1 pat «atanspraket 4« gifte ugnen of the apparatus ss att uttaflplagsaMr Aningen ss RMAA »Tar 1 f9rbindel« e sed e »roeTferinig fsrstrKtningp mm Cr anbragt 1 not the fireplace or 1 afloppakanalen circuit I f» Adah »» i att and terlalet a national utaktta »FSR at the outer llgare upphettning 1 EOH f8r af» leaning torr af-Ae »tillatlenspreoe» »I do not, AAA det» ata »fram Gene« Kmnda fbrt »KttnIng« 7, device according to an ent pat » pr aka t 6 »Kitana's eofc ss nad dKraf in that the fort» Kitningen ss ur anbragt for 1-1 (Cngn ingen f r Kwian «hvarvid ss atar» krufren K f van • trKcker «lg Gene fortsKtningen ooh« atar wife The material gauMj 'd ss nn ss «LBI n | In

Classifications:

International (IPC 8-9): D21C11/12 (Advanced/Invention);

D21C11/12 (Core/Invention)

International (IPC 1-7): D21C11/12

**Family:**

Publication number	Publication date	Application number	Application date
FI5374 A	19130715		00000000

Inventor(s): (std): LUDVIG RINMAN ERIK

Inventor(s): RINMAN ERIK LUDVIG

19) Family number: 28184088 (US2002034573A)

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Title: APPARATUS AND METHOD FOR MAKING STACKABLE TORTILLA CHIPS

Abstract: An apparatus and method for making uniformly shaped snack food chips which can be stacked for packaging, e.g., in a cylindrical canister or a canister which conforms to the contour or perimeter of the snack food chips. The apparatus features two-part mold cavities in which chip preforms are restrained and transported through hot oil to be cooked. Preferably, the mold cavities are defined between a pair of rotating belts, one lower belt and one upper belt, which together "encase" or "sandwich" and thereby restrain the chips. According to the method, a continuous sheet of dough is toasted and then proofed before being cut into individual chip preforms. The preforms are then placed into the mold cavities and transported through hot oil to be cooked. Vacuum transfer rollers are used to facilitate placement of the chip preforms into the mold cavities and extraction of the cooked chips from the mold cavities.

Classifications:

International (IPC 8-9): A21B1/48 A21B5/00 A21B5/08 A21C11/00 A21C11/04 A21D13/00 A23B5/08 A23G3/02 A23G3/34 A23L1/164 A23P1/00 A47J37/12 B65B5/06 (Advanced/Invention);

A23G3/02 (Advanced/Non-invention);

A21B1/00 A21B5/00 A21C11/00 A21D13/00 A23B5/08 A23G3/02

A23G3/34 A23L1/164 A23P1/00 A47J37/12 (Core/Invention)

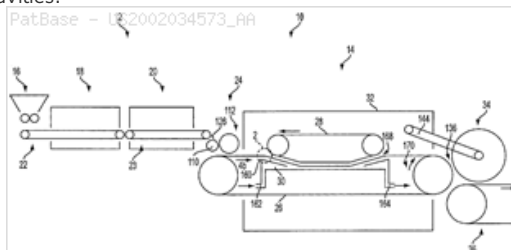
International (IPC 1-7): A21B1/48 A21D13/00 A23B5/08 A23G3/00

A23G3/02 A23L1/00 A47J037/12 A47J37/00 A47J37/12 B65B5/06

CPC: A47J37/1214 A21C11/04 A23P30/10 A23L7/13 A21D13/42

European: A21C11/04 A21D13/00H A21D13/00H4 A23L1/164E

US: 426/403 426/512 426/549 426/808 99/33 99/330 99/339 99/353 99/355 99/357 99/403 99/404 99/407 99/427 993/300

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AU2001236707 BB	20050728	AU20010236707	20010207
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WO0156392 C2	20021031	WO2001US03846	20010207

Priority:

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US20010998663 20011203 KR20027010177 20020807 WO2001US03846 20020807

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Inventor(s): NELSON SHIH HSUN CHEN ; TODD CHARLES MCNEEL ; LAWRENCE ALAN GRAHAM

Agent(s): GRIFFITH HACK; OSLER HOSKIN AND HARCOURT LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

20) Family number: 34329089 (US2007065415A)

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Title: COMPOSITIONS AND METHODS FOR THE AUGMENTATION AND REPAIR OF DEFECTS IN TISSUE

Abstract: Compositions and methods of treating a defect in a patient are disclosed, including expanding a culture of autologous cells in vitro to form cultured cells, collecting the cultured cells for introduction into the patient, and depositing the cultured cells with ancillary proteins.

Classifications:

International (IPC 8-9): A01N A01N1/00 A61F A61F13/00 A61F2/00 A61F2/02 A61F2/10 A61K A61K35/00 A61K35/12 A61K35/14 A61K35/28 A61K35/33 A61K35/36 A61K38/00 A61K38/16 A61K38/17 A61L27/00 A61L27/38 A61P1/04 A61P1/14 A61P1/18 A61P13/00 A61P17/00 A61P17/18 A61P19/00 A61P19/08 A61P19/10 A61P25/16 A61P25/28 A61P29/00 A61P3/10 A61P35/00 A61P43/00 A61P9/00 A61P9/10 A61P9/12 C12N C12N5/00 C12N5/071 C12N5/08 (Advanced/Invention); A01N1/00 A61F2/00 A61F2/02 A61F2/10 C12N5/00 C12N5/08 (Advanced/Non-invention); A01N1/00 A61F13/00 A61F2/00 A61F2/02 A61F2/10 A61K35/12 A61K35/14 A61K35/28 A61K35/36 A61K38/00 A61L27/00 A61P1/00 A61P13/00 A61P17/00 A61P19/00 A61P25/00 A61P29/00 A61P3/00 A61P35/00 A61P43/00 A61P9/00 C12N5/00 C12N5/08 (Core/Invention)

CPC: A61K35/33 A61K38/00 A61K35/12

European: A61K35/12 A61K38/00 A61K38/17

US: 424/93.1 424/93.100S 424/93.7 424/93.700P 435/325 435/325S 435/366 435/366S 435/371 435/371S 514/13.2 514/13.200S 514/15.4 514/15.400S 514/16.4 514/16.400S 514/16.7 514/16.700S 514/16.9 514/16.900S 514/17.8 514/17.800S 514/18.6 514/18.600S 514/19.3 514/19.300S 514/20.7 514/20.700S 514/20.8 514/20.800S 514/21.2 514/21.200S

Family:

Publication number	Publication date	Application number	Application date
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WO07035363 A3	20090409	WO2006US35676	20060914
WO07035843 A2	20070329	WO2006US36750	20060921
WO07035843 A3	20070705	WO2006US36750	20060921

Priority:

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US20060526202 20060921 WO2006US36750 20060921 US20100924052 20100920

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Inventor(s): (std): KLEINSEK DON ; KLEINSEK DONALD A ; SOTO ADRIANA

Inventor(s): SOTO ADRIANAUS ; KLEINSEK DONALD AUS ; KLEINSEK DONALD ; ADRIANA SOTO ; DONALD A KLEINSEK

Agent(s): GRIFFITH HACK; SMART AND BIGGAR; ADE AND CO INC; MEYERS HANS WILHELM; MEYERS HANS WILHELM ET AL; CHINA PATENT AGENT HK LTD; DREW AND NAPIER LLC; PATTERSON THUENTE SKAAR AND CHRISTENSEN PA; DARDI AND ASSOCIATES PLLC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE

21) Family number: 8599094 (US5455110A)

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Title: NONWOVEN LAMINATED FABRICS

Abstract: Fabrics having good bulk, barrier properties and air permeability are made by laminating a first flat spunbond web formed from thermoplastic fibers, a three-dimensional nonwoven meltblown web formed from thermoplastic fibers and a second flat spunbond web formed from thermoplastic fibers, wherein the three-dimensional nonwoven web is located between the first and second spunbond webs.

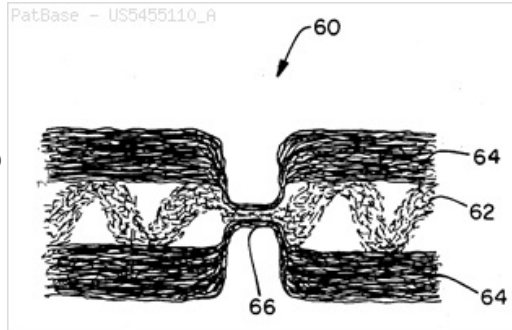
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International (IPC 1-7): A41D31/02 B32B27/00 B32B27/02 B32B27/12 B32B27/32 B32B5/24 B32B5/26 D01F6/06 D01F6/46 D01F8/06 D04H1/42 D04H1/54 D04H1/70 D04H13/00 D04H3/00 D04H3/16 D04H5/00 D06M15/00 D06M17/00
CPC: Y10S428/903 Y10T442/659 Y10T442/66 D04H1/54 D04H1/559 D04H1/56 D04H3/14 B32B5/022 B32B2262/0253 B32B2571/00 B32B5/26

European: B32B5/26 D04H13/00B5

US: 428/284 428/286 428/296 428/297 428/298 428/903 442/381 442/382

**Family:**

Publication number	Publication date	Application number	Application date
AU199523313 A1	19960111	AU19950023313	19950628
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CA2152709 AA	19951230	CA19952152709	19950627
DE69524148 D1	20020110	DE19956024148	19950619
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EP0690163 A2	19960103	EP19950109455	19950619
EP0690163 A3	19990317	EP19950109455	19950619
EP0690163 B1	20011128	EP19950109455	19950619
JP8049158 A2	19960220	JP19950157739	19950623
KR100353584 B1	20030108	KR19950017754	19950628
KR19960001256 A	19960125	KR19950017754	19950628
MX9502433 A1	19970430	MX19950002433	19950531
US5455110 A	19951003	US19940268048	19940629

Priority:

US19940268048 19940629 CA19952152709 19950627

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): KIMBERLY CLARK CO

Assignee(s): KIMBERLY CLARK CORP ; KIMBERLY CLARK WORLDWIDE INC ; CONNOR LINDA ANN

Inventor(s): (std): CONNOR LINDA A ; CONNOR LINDA ANN ; RINDA AN KOONAA

Inventor(s): LINDA ANN CONNOR

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; BORDEN LADNER GERVAIS LLP

Designated states: BE DE ES FR GB IT NL SE

22) Family number: 28690098 (US2003118776A)

© PatBase

Title: ENTANGLED FABRICS

Abstract: A fabric that comprises an entangled, creped and optionally stretched nonwoven web is provided. The nonwoven web is formed from splittable multicomponent thermoplastic fibers having individual segments exposed on an outer perimeter thereof. In one embodiment, the splittable multicomponent fibers are continuous spunbonded thermoplastic fibers. For example, in some embodiments, the creped nonwoven web can be hydraulically entangled with a fibrous material that contains cellulosic fibers and optionally synthetic staple fibers.

Classifications:

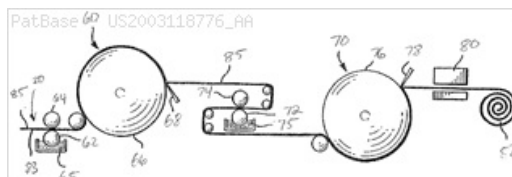
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International (IPC 1-7): A47L13/16 B32B1/00 B32B23/12 D01F8/06 D01F8/12 D01F8/14 D04H1/00 D04H1/40 D04H1/42 D04H1/44 D04H1/46 D04H1/48 D04H1/50 D04H1/58 D04H3/00 D04H3/10 D04H3/12 D04H5/02 D06N7/04

CPC: Y10T428/24446 D21F11/145 D01F8/06 D01F8/12 D01F8/14 D21F11/14 Y10T442/601 Y10T442/637 Y10T442/689 Y10T442/69 Y10T442/692 D04H1/4334 D04H1/435 D04H1/4382 D04H1/4391 D04H1/495 D04H5/03 D04H1/425 D04H1/4291

European: D01F8/06 D01F8/12 D01F8/14 D04H1/42 D04H1/46B D04H1/70 D21F11/14 D21F11/14B

US: 428/152 428/152P 442/328 442/328S 442/361 442/361S 442/408 442/408S 442/409 442/409S 442/411 442/411S

**Family:**

Publication number	Publication date	Application number	Application date
AR037850 AA	20041209	AR2002P104876	20021216

AU2002348155 AA	20030709	AU20020348155	20021031
BRPI0214712 A	20061114	BR2002PI14712	20021031
CA2469386 AA	20040604	CA20022469386	20021031
CL2002002920 A1	20031226	CL20020002920	20021218
CN1599817 A	20050323	CN20028024161	20021031
CO5590976 A2	20051230	CO20040052220	20040604
EP1456453 A1	20040915	EP20020784375	20021031
JP2005537396 T2	20051208	JP20030554968T	20021031
KR20040073450 A	20040819	KR20047008488	20021031
MXPA04005297 A1	20040913	MX2004PA05297	20021031
PE05952003 A1	20030707	PE20020001220	20021213
RU2004117166 A	20050327	RU20040117166	20021031
TH62384 A	20040607	TH20021004029	20021029
TW200304970 A	20031016	TW20020135919	20021212
TWI227291 B	20050201	TW20020135919	20021212
US2003118776 AA	20030626	US20010027242	20011220
WO03054272 A1	20030703	WO2002US35120	20021031
ZA200404441 A	20060531	ZA20040004441	20040604

Priority:

US20010027242 20011220 WO2002US35120 20021031

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): KIMBERLY CLARK CO ; KIMBERLY CLARK CORP ; KIMBERLY CLARK WORLDWIDE INC

Assignee(s): VARONA EUGENIO ; ANDERSON RALPH

Inventor(s): (std): EUGENIO G VARONA ; RALPH L ANDERSON ; VARONA EUGENIO ; VARONA EUGENIO G ; VERONA EUGENIO ; ANDERSON RALPH ; ANDERSON RALPH L ; RALPH ANDERSON ; EUGENIO VARONA

Inventor(s): ANDERSON RALPH VARONA EUGENIO

Agent(s): FREEHILLS PATENT ATTORNEYS; HERBERT SMITH FREEHILLS; FREEHILLS PATENT ATTORNEY S; FPA PATENT ATTORNEYS PTY LTD; BORDEN LADNER GERVAIS LLP; PORZIO

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

23) Family number: 28717161 (US2003194932A)

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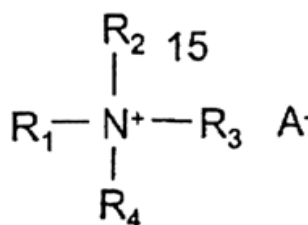
Title: ANTIMICROBIAL PRE-MOISTENED WIPERS

Abstract: A pre-moistened wiper that exhibits good antimicrobial kill at relatively small levels of antimicrobial agent is provided. In one embodiment, for example, the wiper contains a sanitizing formulation that includes between about 0.01 percent by weight to about 1 percent by weight of an antimicrobial agent, including a quaternary ammonium compound, and water. The sanitizing formulation is capable of being released from the wiper as a solution such that the quaternary ammonium compound is present within the solution in an amount less than about 2000 parts per million of the solution. The wiper can exhibit a log reduction for E. Coli of at least about 2.

Classifications:

International (IPC 8-9): A01N25/30 A01N25/34 A01N33/12 A47L19/00 B32B27/04 B32B27/12 B32B5/02 B32B9/00 B32B9/04 D04H1/00 D04H13/00 D04H3/00 D04H5/00 (Advanced/Invention); A01N33/12 B32B27/04 B32B5/02 (Advanced/Non-invention); A01N25/30 A01N25/34 A01N33/00 (Core/Invention)
International (IPC 1-7): A01N25/08 A01N25/30 A01N25/34 A01N33/12 A47L19/00 A61K35/00 B32B27/04 B32B27/12 B32B5/02 C07C211/08 C07C211/45 C07D3/00 C11D1/62 C11D1/66 C11D3/43 C11D3/48 D04H1/00 D04H13/00 D04H3/00 D04H5/00
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European: A01N33/12
US: 442/123 442/123P 442/152 442/153 442/327 442/327S 442/59

PatBase - TW200305366_A



Family:

Publication number	Publication date	Application number	Application date
AR037643 AA	20041117	AR2002P104699	20021204
AU2002357689 AA	20030709	AU20020357689	20021031
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CA2470157 AA	20040614	CA20022470157	20021031
CA2470157 C	20120320	CA20022470157	20021031
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DE60231831 D1	20090514	DE20026031831	20021031
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EP1455576 A1	20040915	EP20020792226	20021031
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JP2005513074 T2	20050512	JP20030553914T	20021031
KR100976006 B1	20100817	KR20047009504	20021031
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MXPA04005852 A1	20040913	MX2004PA05852	20021031
PE05902003 A1	20030708	PE20020001127	20021122
TH61606 A	20040420	TH20021003369	20020906
TW200305366 A	20031101	TW20020135371	20021206
US2003194932 AA	20031016	US20010027791	20011220
US7838447 BB	20101123	US20010027791	20011220
WO03053144 A1	20030703	WO2002US35243	20021031
ZA200402895 A	20050418	ZA20040002895	20040416

Priority:

US20010027791 20011220 WO2002US35243 20021031

Probable Assignee: KIMBERLY CLARK CORP**Assignee(s):** (std): KIMBERLY CLARK CO ; KIMBERLY CLARK CORP**Assignee(s):** KIMBERLY CLARK WORLDWIDE INC ; TRUSOCK JULIE W ; CLARK JAMES W ; JENKINS SHAWN E**Inventor(s):** (std): JULIE W TRUSOCK ; JENKINS SHAWN W ; JENKINS SHAWN E ; TRUSOCK JULIE W ; CLARK JAMES W**Inventor(s):** TRUSOCK JULIE ; SHAWN E JENKINS ; JAMES W CLARK**Agent(s):** FREEHILLS PATENT ATTORNEYS; HERBERT SMITH FREEHILLS; FREEHILLS PATENT ATTORNEY S;
SPRUNSON AND FERGUSON; FREEHILLS PATENT AND TRADE MARK ATTORNEYS; BORDEN LADNER
GERVAIS LLP; PORZIO; BEACHAM ANNABEL ROSE; DORITY AND MANNING PA**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK
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LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD
SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW**24) Family number: 50440161 (US2013168080A)**

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Title: RADIAL VIBRATIONAL APPARATUS**Abstract:** A downhole assembly able to generate a vibrational output reliant upon a fluid feed drive to cause relative rotation extending magnetic arrays and thereby a relative longitudinal vibration causing reciprocation.**Classifications:****International (IPC 8-9):** E21B E21B1/22 E21B23/00 E21B28/00

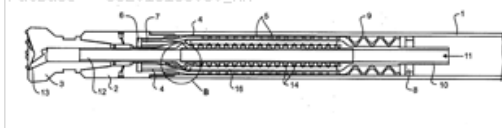
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E21B7/24 (Advanced/Invention);

E21B (Subclass/Invention)

CPC: E21B31/005 E21B4/02 E21B7/24 E21B6/00 E21B28/00**European:** E21B31/00C E21B4/02 E21B7/24**US:** 1/1 166/177.6 173/114 173/141

PatBase - US2013168080_AA

**Family:**

Publication number	Publication date	Application number	Application date
AU2011271748 AA	20120105	AU20110271748	20110629
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CA2803288 AA	20121219	CA20112803288	20110629
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CL53890 B	20170207	CL20120003721	20121228
CL53890 B	20170202	CL20120003721	20121228
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CN103109033 B	20150218	CN201180032614	20110629
EP2588701 A1	20130508	EP20110801205	20110629
EP2588701 A4	20180606	EP20110801205	20110629
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JP5952271 B2	20160713	JP20130518303T	20110629
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MY164222 A	20171130	MY20120005587	20110629
RU2013104164 A	20140810	RU20130104164	20110629
RU2569950 C2	20151210	RU20130104164	20110629
SG186799 A1	20130228	SG20120094728	20110629
US2013168080 AA	20130704	US20110807977	20110629
US9290996 BB	20160322	US20110807977	20110629
WO12002827 A1	20120105	WO2011NZ00123	20110629
ZA201209559 A	20130828	ZA20120009559	20121214

Priority:NZ20100586560 20100701 NZ20100586882 20100719 NZ20110593040 20110524
WO2011NZ00123 20110629**Probable Assignee:** FLEXIDRILL LTD**Assignee(s):** (std): FLEXIDRILL LTD ; GREENWOOD ROLAND ; POWELL PETER EVAN ; SISSON DANNY ; FLEKSIDRILL LTD**Assignee(s):** FLEXIDRILL LIMITED**Inventor(s):** (std): SISSON DEHNNI ; GRINVUD ROLAND ; PAUEHLL PITER EHVAN ; POWELL PETER EVAN ; GREENWOOD
ROLAND ; SISSON DANNY**Inventor(s):** PETER EVAN POWELL ; ROLAND GREENWOOD ; DANNY SISSON**Agent(s):** A J PARK; AJ PARK; RICHES MCKENZIE AND HERBERT LLP; ESTUDIO FEDERICO VILLASECA; THOMSON
NEIL DAVID; AOKI ATSUSHI; SHIMADA TETSURO; JACOBSON HOLMAN PLLC; ADAMS MATTHEW D ET
AL**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU
CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL
IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT
MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST
SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**25) Family number: 31368170 (US2002061723A)**

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Title: RAISED ISLAND ABRASIVE AND PROCESS OF MANUFACTURE

Abstract: Abrasive sheet materials, abrasive sheet materials with island distributions of abrasive particles, processes for manufacture of abrasive sheet materials with minimized abrasive content, processes for attaching abrasive particles exclusively on the top surface of raised islands in monolayers, and processes for attaching raised island foundation structures to inexpensive flexible backing sheets are described. The process for manufacturing the abrasive sheeting provides an economical method for providing improved quality abrasive sheeting, while also allowing for greater control over the shape and distribution of abrasive islands on the sheet than is available from present processes of manufacture.

Classifications:

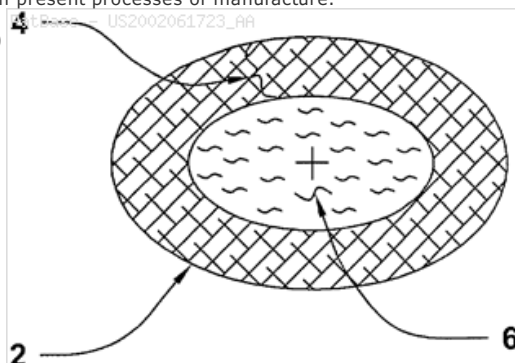
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International (IPC 1-7): B24B1/00 B24B5/00 B24B7/19 B24D11/00 B24D18/00 B24D3/00 C09K3/14

CPC: B24B1/00 B24B5/00 B24B7/00 B24B9/00 B24B37/00 B24B37/14 B24B45/00 B24D9/10 B24B37/042 B24B37/12 B24B37/245 B24B37/26 Y10T29/4998 Y10T29/49982 B24D2203/00 B24D18/00 B24D11/00 B24D11/001 C09K3/1436

European: B24B1/00 B24B37/00 B24B37/04B B24B37/12 B24B37/14 B24B37/24F B24B37/26 B24B45/00 B24B5/00 B24B7/00 B24B9/00 B24D11/00 B24D11/00B B24D18/00 B24D9/10 C09K3/14C

US: 264/11 264/12 264/13 264/15 29/527.1 29/527.2 451/178 451/259 451/259P 451/28 451/285 451/286 451/287 451/290 451/36 451/360 451/41 451/449 451/494 451/527 451/527P 451/53 451/530 451/533 451/539 451/548 451/548P 451/550 451/56 451/56P 451/59 51/293 51/293S 51/298 51/300 51/300S 51/309



Family:

Publication number	Publication date	Application number	Application date
EP1207015 A2	20020522	EP20010309698	20011116
EP1207015 A3	20030730	EP20010309698	20011116
JP2002200566 A2	20020716	JP20010352985	20011119
US2002061723 AA	20020523	US20010015478	20011213
US2004235406 AA	20041125	US20040824107	20040414
US2005032469 AA	20050210	US20040816275	20040816
US2005118939 AA	20050602	US20050029761	20050105
US2008299875 AA	20081204	US20080221265	20080730
US2010003904 AA	20100107	US20080217565	20080707
US5910041 A	19990608	US19970812012	19970306
US6149506 A	20001121	US19980168057	19981007
US6752700 BB	20040622	US20010015478	20011213
US6769969 BA	20040803	US20000715448	20001117
US7520800 BB	20090421	US20040816275	20040816
US7632434 BB	20091215	US20040824107	20040414
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US8545583 BB	20131001	US20050029761	20050105

Priority:

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Probable Assignee: KELTECH ENGINEERING INC

Assignee(s): (std): DUESCHER WAYNE O ; KELTECH ENGINEERING ; KELTECH ENGINEERING INC

Inventor(s): (std): DUESCHER WAYNE O

Inventor(s): DUESCHER WAYNE

Agent(s): TSURUTA JUNICHI; NISHIYAMA MASAYA; HIGUCHI SOTOJI; ISHIDA TAKASHI; MARK A LITMAN AND ASSOCIATES PA YORK BUSINESS CENTER; MARK A LITMAN AND ASSOCIATES PA; YORK BUSINESS CENTER

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

26) Family number: 1291176 (US4010831A)

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Title: TRANSMISSION FRICTION PLATE AND DEVICE

Abstract: A method of edge coiling annular steel plates for transmission friction plate devices in which straight tapered strip steel stock with prime spline tangs on one edge are edge rolled into open annular steel plates with finished spline tangs leaving a gap between the unjoined free ends. The strip steel stock is slit into straight flat strips having a width double the total face width of the annular plate. The flat double width strip is rolled to provide a symmetrical tapered double width strip having a central thick flat portion and on each side a symmetrically tapered portion with thin edges. The double width tapered strip is blanked in the central portion to form uniformly spaced prime spline tangs each having a central recess and slit to divide the double width strip into two single width tapered strips with the recessed prime spline tangs on the thick edge. The single width tapered strips are edge rolled in an edge rolling machine feeding the strips in a straight guide to a coiling roll having a cylindrical surface with relief recesses and a tooth in each relief recess to engage the thick edge of the strip with the relief recesses providing clearance for the prime spline tangs and the tooth engaging the base of the central recess for uniform circular coiling and having side guides spaced apart the mean thickness of the tapered strip to hold the coil flat. Then the end coil is cut off to form the open annular steel plate.

Classifications:

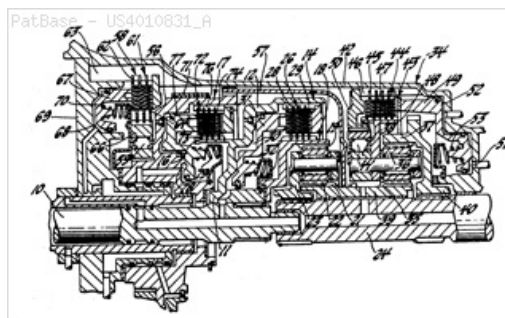
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International (IPC 1-7): B21D53/00 B21D53/26 B23P17/00 F16D13/52 F16D13/60 F16D13/64 F16D55/40 F16D65/12 F16H5/34 F16H57/10

CPC: Y10T29/49789 Y10T29/49826 F16D13/648 B21D53/16

European: B21D53/16 F16D13/64C

US: 188/218XL 188/264E 192/107R 192/113.34 192/70.2 29/400R

**Family:**

Publication number	Publication date	Application number	Application date
AU197619037 A1	19780504	AU19760019037	19761027
DE2651729 A1	19770602	DE19762651729	19761111
FR2332456 A1	19770617	FR19760035147	19761122
GB1530526 A	19781101	GB19760046755	19761110
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US4077107 A	19780307	US19760745430	19761126

Priority:

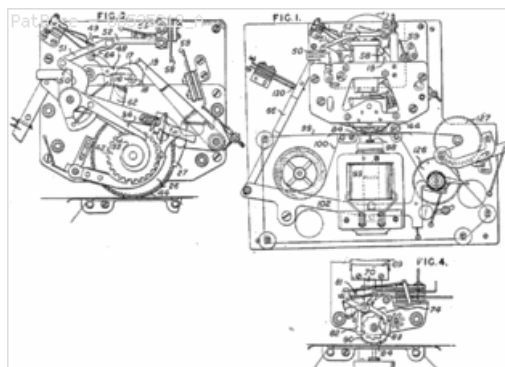
US19750634253 19751121

Probable Assignee: GEN MOTORS CORP**Assignee(s):** (std): GEN MOTORS CORP**Assignee(s):** GENERAL MOTORS CORP**Inventor(s):** (std): REUTER DAVID F ; REUTER DAVID FREDERICK ; REUTER DAVID FREDRICK**Inventor(s):** DAVID FREDERICK REUTER ; FREDRICK REUTER DAVID**27) Family number: 20031179 (GB525212A)**

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Title: IMPROVEMENTS IN OR RELATING TO RECORDING DEVICE

Abstract: 525,212. Record printing machines. INTERNATIONAL BUSINESS MACHINES CORPORATION. Feb. 16, 1939, No. 5130. Convention date, March 24, 1938. [Class 106 (iv)] A record printing machine includes type wheels bearing time and count indications, a platen moved relatively to the type wheels cyclically by electromagnetic means and means normally held in one position by the power supply to hold the circuit between the electromagnetic and cyclically operated means closed, said means being moved to an alternative position upon failure of the power supply whereby the electromagnetic means are operated upon the termination of the power failure to effect a printing operation to automatically record time of failure and the count at such time. The invention is described as a machine for counting the traffic along a road, the total passers-by being printed each hour. Counting mechanism.-Impulses which may be generated by photo-electric cells closing contacts energize magnet 69 Fig. 4, to lift the solenoid 70 to rotate the spring-pressed U-shaped member 74 which closes contacts 81 and bears spring-pressed pawls 82, 83 which rotate a ratchet 84 having fixed thereto a units type wheel 90. The tens and hundreds type wheels 91 Fig. 2, (not shown) are operated by Geneva wheels. Timing mechanism.-A synchronous motor drives a shaft 16, Fig. 3, which bears cams 17 and 18 and rotates once per minute. Cam 17 operates through lever 19 and spring-pressed pawl 27 a gear 26 having fixed thereto a minute type wheel 44. Further cams and levers operate further type wheels for hour and day records. Printing mechanism.-Cam 18 operates lever 48 to close contacts 49 at the sixtieth second of each minute for about two seconds. Cam 33 on the hour wheel 42 operates a lever 34 to turn lever 50 counter-clockwise and straighten links 51, 52. When the lever 34 drops from the high point of cam 33, lever 50 rotates the block 53 through the straightened links 51, 52 to close contacts 58, 59, once each hour at the same time that contacts 49 close, to energize magnet 93, Fig. 1, which raises a platen 98 to print the record of the type wheels on a record strip 100. When the lever 48 drops from the high-point of cam 18, contacts 49 open to de-energize magnet 93 which releases spring-influenced lever 102 to advance strip 100 and ribbon 99 through gears 126, 127 and to operate link 66 and close contacts 130. Link 66 also rotates lever 62, Fig. 3, which strikes the projection 64 of toggle 51, 52 to break the straight line previously formed and to open contacts 58, 59. In the event of current failure, a printing operation is performed immediately the current supply is resumed. A circuit is described with reference to Fig. 6, (not shown).

Classifications:**Family:**

Publication number	Publication date	Application number	Application date
GB525212 A	19400823	GB19390005130	19390216

Probable Assignee: IBM**Assignee(s):** (std): IBM**Assignee(s):** INT BUSINESS MACHINES CORP

Title: Devices and methods for performing a vascular anastomosis

Abstract: A system for performing an end-to-side vascular anastomosis, including an anastomosis device, an application instrument and methods for performing a vascular anastomosis. The system is applicable for performing an anastomosis between a vascular graft and the ascending aorta in coronary artery bypass surgery, particularly in port-access CABG surgery. A first aspect of the invention includes a vascular anastomosis staple. A first configuration has two parts: an anchor member, forming the attachment with the target vessel wall and a coupling member, forming the attachment with the bypass graft vessel. The anastomosis is completed by inserting the coupling member, with the graft vessel attached, into the anchor member. A second configuration combines the functions of the anchor member and the coupling member into a one-piece anastomosis staple. A second aspect of the invention includes an anastomotic fitting having an inner flange over which the graft vessel is everted and an outer flange which contacts the exterior surface of the target vessel. A tailored amount of compression applied by the inner and outer flanges grips the target vessel wall and creates a leak-proof seal between the graft vessel and the target vessel. A third aspect of the invention has a flange to which the graft vessel attaches, by everting the graft vessel over the flange, and a plurality of staple-like members which attach the flange and the everted end of the graft vessel to the wall of the target vessel to form the anastomosis.

Classifications:

International (ipc 8-9): A61B17/00 A61B17/02 A61B17/04 A61B17/06 A61B17/08 A61B17/11 A61B17/115 A61B17/12 A61F2/00 (Advanced/Invention); A61B17/00 A61B17/02 A61B17/06 A61B17/11 A61B17/115 A61B17/12 A61F2/00 (Advanced/Non-invention); A61B17/00 A61B17/03 A61B17/06 A61B17/068 (Core/Invention); A61B17/00 A61B17/12 A61F2/00 (Core/Non-invention)

International (ipc 1-7): A61B17/00

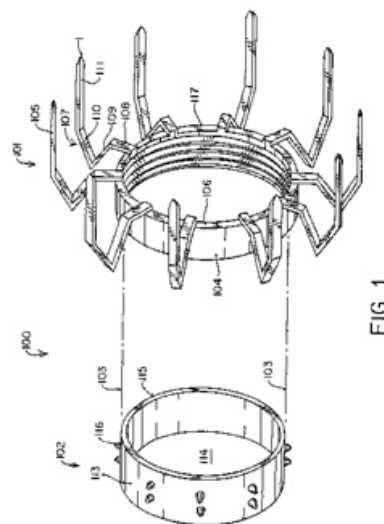
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US: 128/898 227/179.1 227/180.1 600/210 600/215 600/219 600/235 606/1 606/104 606/139 606/142 606/143 606/151 606/151P 606/151S 606/153 606/153P 606/153S 606/155 606/155P 606/155S 606/156 606/184 606/191 606/194 606/198 606/213 606/219 606/219S 606/232

PatBase - US2001001122_AA

Patent Application Publication May 18, 2001 Sheet 1 of 65 US 2001/0001122 A1



Family:

Publication number	Publication date	Application number	Application date
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Priority:

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US20050051788	20050204	US20050059169	20050216	US20110073119	20110328

Probable Assignee: HEARTPORT INC

Assignee(s): (std): BOLDUC LEE R ; COSTA PETER F ; DICESARE PAUL C ; FANN JAMES I ; HEARTPORT INC ; GIFFORD III HANSON S ; STEIN JEFFREY A ; HOLMES WILLIAM A ; HEARTPORT INC ; GIFFORD HANSON S III

Assignee(s): GIFFORD HANSON S ; ADAMS CRAIG L ; STANFORD SURGICAL TECHNOLOGIES INC ; STEIN JEFFERY A ; SNOW DAVID W ; GIFFORD HANSON SIII ; DONLON BRIAN S

Inventor(s): (std): ADAMS CRAIG L ; BOLDUC LEE ; BOLDUC LEE R ; COSTA PETER ; COSTA PETER F ; DICESARE PAUL ; DICESARE PAUL C ; DONLON BRIAN S ; FANN JAMES I ; GIFFORD HANSON ; GIFFORD HANSON S ; GIFFORD HANSON S III ; JAMES I FANN ; JEFFREY A STEIN ; LEE R BOLDUC ; PAUL C DICESARE ; PETER F COSTA ; SNOW DAVID W ; STEIN JEFFERY A ; STEIN JEFFREY ; STEIN JEFFREY A ; WILLIAM A HOLMES ; GIFFORD III HANSON S ; HANSON S GIFFORD ; HANSON S GIFFORD III ; HOLMES WILLIAM ; HOLMES WILLIAM A

Inventor(s): III HANSON S ; GIFFORD HANSON SIII ; GIFFORD ; CRAIG L ADAMS ; DAVID W SNOW ; BRIAN S DONLON

Agent(s): FB RICE; FB RICE PTY LTD; FETHERSTONHAUGH AND CO; BAYLISS GEOFFREY CYRIL ET AL; MERRIFIELD SARAH ELIZABETH ET AL; PHILIP S JOHNSON JOHNSON AND JOHNSON; BRIAN; BRIAN S; THEODORE J

Designated states: AT AU BE CA CH DE DK ES FI FR GB GR IE IT JP LI LU MC NL PT SE

Abstract: Source: DE2320032A1 [DE] Patentansprüche: W Vorrichtung zum Ziehen eines Gegenstands aus einem Materialzuschnitt, der zwischen zusammenwirkenden Ziehorganen angeordnet werden und aus diesen durch einen beweglichen Presskolben, der sich relativ zu den Ziehorganen bewegen lässt, gezogen werden kann, wobei die Vorrichtung mit einer einzigen Flüssigkeitskammer aus gestattet ist, die Kolbenteile eines der Ziehorgane und des Presskolbens enthaelt, und wobei ferner die Relativbewegung zwischen der Vorrichtung und dem einen Ziehorgan in einer Richtung die den Ziehvorgang an dem Zuschnitt verursachende Bewegung des Presskolbens her vorruft, die infolge der Flüssigkeitswirkung zwischen den in der Flüssigkeitskammer befindlichen Kolbenteilen zu standekommt, dadurch gekennzeichnet, dass Drossel- und Trennmittel (66, 67) an mindestens einem der Kolbenteile (41, 47) vorgesehen und in der Flüssigkeitskammer (49) angeordnet sind, dass die Drossel- und Trennmittel (66, 67) die Flüssigkeit zur Ausübung einer Kraft auf den Kolbenteil (41) des einen Ziehorgans (40) veranlassen, die grösser ist als die Kraft, die auf diesen Kolbenteil (41) des Ziehorgans (40) durch den Widerstand des Zuschnitts (61) gegen die auf ihn ausgeübte Ziehwirkung des Presskolbens (39) ausgeübt wird, - zumindest während eines Teils des Ziehvorgangs zwischen Zuschnitt und Presskolben - und dass die Drossel- und Trennmittel (66, 67) in der Kammer (49) diese in zwei Teilkammern (71 greater than 72) auf teilen, wobei die Flüssigkeit in der einen Teilkammer (71) vor allem auf den Kolbenteil (41) des einen Ziehorgans (40) einwirkt.

Machine translation: CLAIMS: W apparatus for drawing an object from a material blank, which are arranged organs between zusammenwirkenden drawing, and from these movable by a plunger which can move bodies relative to the handle can be pulled, and from the device with a single Flüssigkeitskammer is permitted, contains the reciprocating parts of the drawing system and the plunger, and wherein the relative movement between the device and a handle organ in a direction that the drag on the cutting-causing movement of the plunger ago vorruft, in consequence of the Flüssigkeitswirkung between our little girl is the Flüssigkeitskammer located piston parts, wherein the throttle and release agents (66, 67) provided at least one of the piston parts (41, 47) and in the Flüssigkeitskammer (49) arranged so that the throttle and release agent (66, 67) the liquids to exert a force on the piston member (41) of a handle body (40 induce), which is larger than the force exerted on this piston portion (41) of the drawing organ (40) by the resistance of the blank (61) against the force applied to him pulling effect of the compression piston (39) carried on, is - at least during a portion of the drawing process between cutting and ben Presskol - and that the throttle and Tn # nnmittel (66, 67) in the chamber (49) this in two chambers (71 greater than 72) to share, with the liquid in the chamber part (71) mainly due to the piston member (41) of a drawing organ (40) second acts

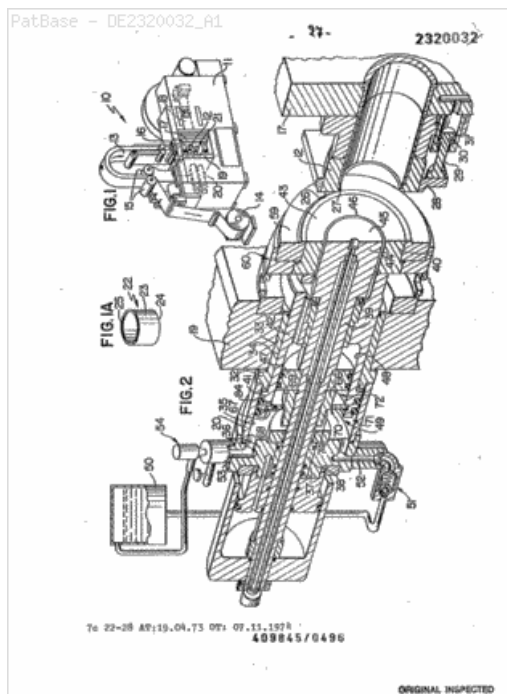
Classifications:

International (IPC 8-9): B21D24/14 (Advanced/Invention); B21D24/00 (Core/Invention)

International (IPC 1-7): B21D22/28

CPC: B21D24/14

European: B21D24/14



Family:

Publication number	Publication date	Application number	Application date
DE2320032 A1	19741107	DE19732320032	19730419

Priority:

DE19732320032 19730419

Probable Assignee: REYNOLDS METALS CO

Assignee(s): (std): REYNOLDS METALS CO

Assignee(s): REYNOLDS METALS CO HENRICO COUNTY VA V ST A

Inventor(s): (std): CVACHO DANIEL STEVE ; WALLACE JOSEPH WILLIAM

30) Family number: 20733276 (US6103061A)

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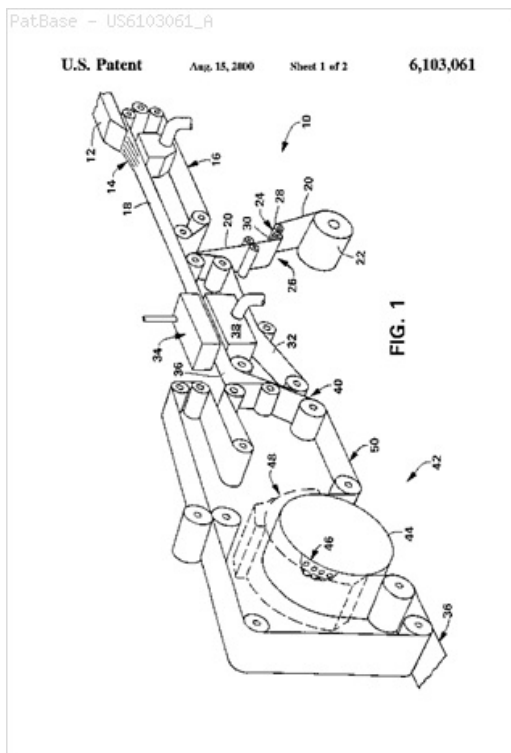
Title: SOFT, STRONG HYDRAULICALLY ENTANGLED NONWOVEN COMPOSITE MATERIAL AND METHOD FOR MAKING THE SAME

Abstract: A method of making a nonwoven composite material. The method includes the steps of: providing a hydraulically entangled web containing a fibrous component and a nonwoven layer of substantially continuous filaments; applying a bonding material to at least one side of said web; and creping said at least one side of the hydraulically entangled web. The bonder material may be an aqueous mixture including a curable latex polymer, a pigment, and a cure promoter. Also disclosed is a nonwoven composite material made of a hydraulically entangled web including a fibrous component; a nonwoven layer of substantially continuous filaments; and regions containing bonder material covering at least a portion of at least one side of the composite material, wherein at least one side of the web has been creped.

Classifications:

International (IPC 8-9): A47K7/00 A47L13/16 B31F1/12 D04H1/04

D04H1/46 D04H1/58 D04H11/08 D04H3/08 D04H3/11 D04H3/12
D04H5/02 D04H5/04 D21F11/14 D21H17/67
D21H27/34 (Advanced/Invention);
A47K7/00 A47L13/16 D04H1/40 D04H1/58 (Advanced/Non-invention);
D04H1/46 D04H11/00 D04H5/00 D21F11/00 (Core/Invention)
International (IPC 1-7): A47K7/00 A47L13/16 B31F1/12 D04H1/04
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D04H5/02 D04H5/04 D21H17/67 D21H27/34 F04B1/02
CPC: D04H1/49 D04H1/488 D04H1/492 D04H1/66 D21F11/145
D04H11/08 D21F11/14
European: D04H1/46B D04H11/08 D21F11/14 D21F11/14B
US: 111/112 111/115 111/134 111/135 111/146 162/108



Family:

Publication number	Publication date	Application number	Application date
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AU199910982 A1	19990510	AU19990010982	19981016
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CA2305552 AA	20000403	CA19982305552	19981016
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CL1998002363 A1	19990623	CL19980002363	19981001
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WO9920821 A1	19990429	WO1998US21967	19981016

Priority:

US19970062972P 19971017 US19980111006 19980707 WO1998US21967 19981016

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): KIMBERLY CLARK CO

Assignee(s): KIMBERLY CLARK CORP ; KIMBERLY CLARK WORLDWIDE INC ; MERKER JOSEPH F ; RADWANSKI FRED ROBERT ; SKOOG HENRY ; KIMBERLY CLARK WORDWIDE INC ; ANDERSON RALPH L

Inventor(s): (std): JOSEPH F MERKER ; RADWANSKI FRED R ; RALPH L ANDERSON ; SKOOG HENRY ; RADWANSKI ROBERT ; RADWANSKI FRED ROBERT ; MERKER JOSEPH F ; MERKER F ; FRED ROBERT RADWANSKI ; HENRY SKOOG ; ANDERSON RALPH L ; ANDERSON L

Inventor(s): RADWANSKI FRED ROBERT ; JOSEPH F MEKER ; FRED R RADWANSKI

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; BORDEN LADNER GERVAIS LLP; PORZIO; RAMIRO CASTRO DUQUE

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR GA GB GE GH GM GN GR GW HR HU ID IE IL IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT UA UG UZ VN YU ZW

31) Family number: 12510283 (US5344519A)

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Title: APPARATUS FOR APPLYING LABELS ONTO SMALL CYLINDRICAL ARTICLES HAVING IMPROVED VACUUM AND AIR PRESSURE PORTING FOR LABEL TRANSPORT DRUM

Abstract: An apparatus for applying thin film polymer labels onto small cylindrical articles includes a label transport drum that is constructed for aiding the transfer of a label onto a cylindrical article. The apparatus includes a label transport drum having a cylindrically configured hub and cylindrical drum mounted on the hub for rotation thereabout. The drum has an

outer surface on which labels are fed while the drum is rotated about the hub. A first radially extending, slotted vacuum manifold defines a label retention area and extends circumferentially around a substantial portion of the circumference of the hub. A first radially extending slotted pressure manifold is aligned circumferentially after the slotted vacuum manifold at an article wrapping position. A valve port, circumferentially aligned with the vacuum and pressure manifolds is positioned on the inner surface of the drum and communicates with the area on the drum surface where the leading edge of the label lies. As the drum rotates, the valve port aligns with the vacuum manifold and draws a vacuum onto the label to retain the label onto the drum. As the drum rotates further the valve port aligns with the pressure manifold to blow air onto the leading edge of the label to force the label outwardly from the drum surface onto an article thereat to aid in label transfer. A second vacuum manifold and valve port draw vacuum onto the label to retain the label on the drum surface past the article wrapping position if an article is not wrapped. The label is blown from the drum surface if an article misfeeds.

Classifications:

International (IPC 8-9): B29C61/10 B29C63/06 B65C3/00 B65C3/06 B65C3/08 B65C3/10 B65C3/12 B65C9/00 B65C9/02 B65C9/06 B65C9/14 B65C9/18 B65C9/22 B65C9/26 B65C9/36 B65H35/07 H01M2/02 (Advanced/Invention)

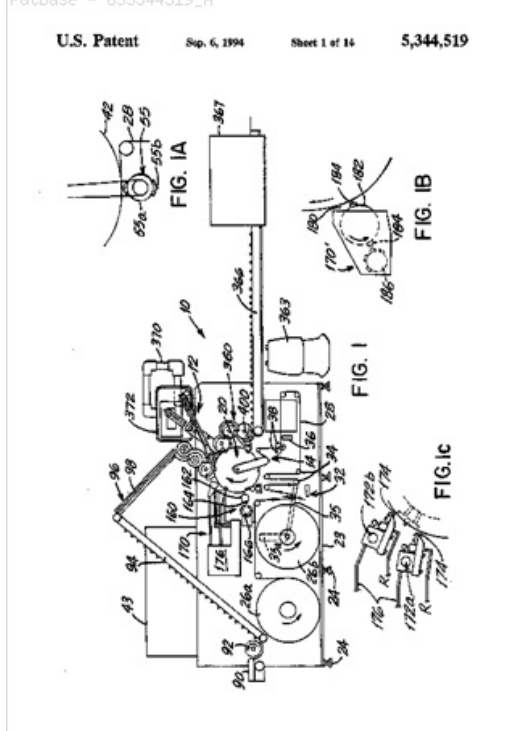
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CPC: Y10S428/908 Y10S428/914 Y10T156/12 Y10T156/1339 Y10T156/1768 Y10T156/1771 Y10T156/1033 Y10T156/1773 Y10T156/1798 Y10T428/1486 Y10T428/24628 Y10T428/24736 Y10T428/24802 B65C2009/1861 Y10T83/2185 Y10T83/4847 B65C3/12 B65C9/02 B65C9/1819 B65C9/2286 B65C9/36

European: B65C3/12 B65C9/02 B65C9/18A4B B65C9/22H4B B65C9/36 L65C9/18A8G2

US: 118/258 118/264 156/156 156/215 156/287 156/308.6 156/314 156/444 156/446 156/449 156/456 156/488 156/510 156/521 156/566 156/567 156/568 156/578 156/86 156/DIG.31 156/DIG.38 198/690.1 221/212 271/276 271/309 283/81 428/174 428/187 428/195 428/195.1 428/40 428/42 428/42.1 428/908 428/914 429/167 429/176 83/152 83/349

PatBase - US5344519_R



Family:

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JP6219429 A2	19940809	JP19930189305	19930630
JP7069333 A2	19950314	JP19940110570	19940425
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US5350482 A	19940927	US19920906573	19920630
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US5437759 A	19950801	US19940259640	19940614
US5458729 A	19951017	US19940356472	19941215
US5512352 A	19960430	US19950434937	19950504
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Priority:

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Probable Assignee: CMS GILBRETH PACKAGING SYSTEMS INC

Assignee(s): (std): C M S GIRUBURESU PACKAGING SYS ; CMS GILBRETH PACKAGING SYSTEMS ; CMS GILBERTH PACKAGING SYSTEMS ; GALCHEFSKI JOHN M ; STEVENSON JOHN ; WESTBURY IAN

Assignee(s): CMS GILBRETH PACKAGING SYSTEMS INC TREVOSE PA US ; CMS GILBRETH PACKAGING SYSTEMS INC F K A GILBRETH INT CORPORATION ; TRINE MFG ; NATIONAL LABEL SYSTEMS INC ; CMS GILBRETH PACKAGINGSYSTEMS ; TRINE MFG CO INC ; CMS GILBERTH PACKAGING SYSTEMS INC TREVOSE PA US ; CMS GILBRETH PACKAGING SYSTEMS INC F K A GILBRETH INT CORP ; CHASE MANHATTAN BANK AS ADMINISTRATIVE AGENT ; CMS GILBRETH PACKAGING SYSTEMS INC (F K A GILBRETH INT CORPORATION) ; CMS GILBERTH PACKAGING SYSTEMS INC ; CHASE MANHATTAN BANK ADMINISTRATIVE AGENT AS ; CMS GILBRETH PACKAGING SYSTEMS INC ; C M S GIRUBURESU PACKAGING SYST ; CHASE MANHATTAN BANK ; ABLECO FINANCE LLC ; AC LABEL CO INC

Inventor(s): (std): GALCHEFSKI JOHN M ; IIAN UESUTOBERII ; STEVENSON JOHN ; VARJIAN HAIG ; WESTBURY IAN ; JIYON SUTEIIBUNSON ; JIYON EMU GARUCHIEFUSUKII

Inventor(s): WESTBURY IAN TURLOCK CA 95380 US ; WESTBURY IAN TURLOCK CALIFORNIA 95380 US ; WESTBURY JAN ; STEVENSON JOHN KINGSTON PENNSYLVANIA 18704 US ; GALCHEFSKI JOHN M LARKSVILLE PENNSYLVANIA 18704 US ; HAIG VARJIAN

Agent(s): SWABEY OGILVY RENAULT

Designated states: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

32) Family number: 50438298 (US2012004595A)

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Title: DEVICES AND METHODS FOR CUTTING AND EVACUATING TISSUE

Abstract: Various medical devices and methods for cutting and/or evacuating tissue are provided. The devices and methods may utilize a reciprocating mechanism or motor powered by suction from a vacuum source. The medical devices and methods may be used on tissue in various regions of a patient's body and for treating various conditions, e.g., for performing a polypectomy or discectomy.

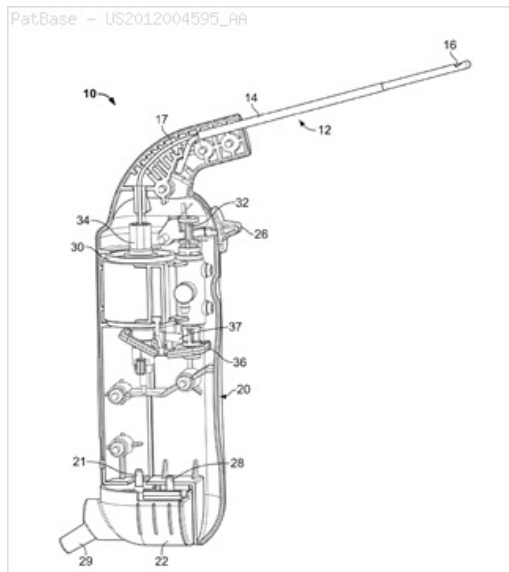
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CPC: A61B18/1485 A61B17/1671 A61B18/082 A61B17/24 A61B2017/00544 A61B2017/00787 A61B18/148 A61B2018/00196 A61B2018/00327 A61B2018/0063 A61B17/32002 A61B17/32 A61B2017/00261 A61B2017/00269 A61B2017/00561 A61B2018/00595 A61B2018/00601 A61B2017/320008 A61B2017/320028 A61B2017/320064 A61B17/320016 A61B2017/320032 A61B2017/00946

European: A61B17/32E2 K61B17/00E1D K61B17/00E1M K61B17/00N10 K61B17/32A2 K61B17/32E2R K61B17/32T

US: 600/566 604/22 604/22P 606/115 606/115S 606/170 606/171 606/171S 606/49 606/49S 606/79 606/79S



Family:

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AU2014215982 AA	20140911	AU20140215982	20140821
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JP20150136958	20150708				

Probable Assignee: MYROMED LLC

Assignee(s): (std): DUBOIS BRIAN R ; GORDON ALEXANDER ; LAURIMED LLC ; NIELSEN JAMES T ; MYROMED LLC

Assignee(s): LAURIMED LLC REDWOOD CITY

Inventor(s): (std): GORDON ALEXANDER ; DUBOIS BRIAN R ; NIELSEN JAMES T ; BRIAN R DUBOIS ; JAMES T NIELSEN ; ALEXANDER GORDON

Inventor(s): DUBOIS BRIAN R REDWOOD CITY ; NIELSEN JAMES T SAN FRANCISCO ; GORDON ALEXANDER MENLO PARK

Agent(s): FB RICE; FB RICE PTY LTD; BORDEN LADNER GERVAIS LLP; KRAUS AND WEISERT PATENTANWALTE PARTGMBB; PRICE NIGEL JOHN KING; UNGRIA JAVIER; LEVINE BAGADE HAN LLP; GIOVANNETTI STEVEN M ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

33) Family number: 28307308 (US2002152860A)

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Title: APPARATUS AND METHOD FOR ROTARY PRESSURE CUTTING

Abstract: An improved rotary pressure cutting apparatus that cuts, perforates, and scores plies of paper, window materials, label stock, and plastic laminates in conjunction with soft, discontinuous, and/or non-cylindrical anvil surfaces. A light weight, low mass anvil in the form of a metallic sheet is supported in a strike position beneath a rotating blade. The anvil is biased by springs or elastomeric members toward the strike position and moves with the material being cut and the moving cutting blade during a cut. The anvil is returned to the strike position by the biasing member upon completion of the cut.

Classifications:

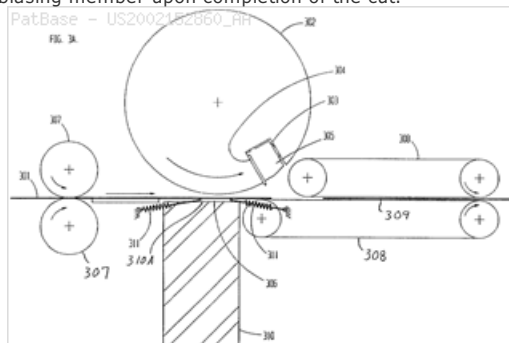
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CPC: Y10T83/0515 Y10T83/4691 Y10T83/4844 Y10T83/7809 Y10T83/793 B26D7/20

European: B26D7/20

US: 451/289 451/289S 83/298 83/298S 83/348 83/348S 83/37 83/370 83/37P 83/495 83/510



Family:

Publication number	Publication date	Application number	Application date
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EP1390178 B1	20101027	EP20020739156	20020419
US2002152860 AA	20021024	US20020125769	20020418
US6772663 BB	20040810	US20020125769	20020418
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Priority:

US20010285182P 20010420 US20020125769 20020418 WO2002US12083 20020419

Probable Assignee: TAMARACK PRODUCTS INC

Assignee(s): (std): TAMARACK PRODUCTS INC ; TAMARACK PRODUCTS INC A DELAWA

Assignee(s): TAMARACK PRODUCTS INC A DELAWARE CORP ; TAMARACK PRODUCTS INC A DELAWARE CORPORATION

Inventor(s): (std): MACHAMER DAVID

Inventor(s): DAVID MACHAMER

Agent(s): CASEY LINDSAY JOSEPH

Designated states: AT AU BE CH CY DE DK ES FI FR GB GR IE IT KR LI LU MC NL PT SE TR

34) Family number: 8481314 (WO9428727A1)

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Title: APPARATUS AND METHOD FOR FORMING FILLED CEREAL PILLOWS

Abstract: An apparatus (10) for forming a continuous cooked cereal dough sheet (12) into a filled pillow snack product is provided. The apparatus (10) includes a means (13) for forming a continuous double width cooked cereal dough sheet (12) into first (16) and second (18) single width dough sheets and aligning the dough sheets in spaced aligned relationship for feeding into a means for forming a plurality of longitudinally extending continuous separable tubes such as first counter rotating nip forming rolls (30, 32); a fluidized filling supply (36) for applying a bead or plurality of streams of filling intermediate the single width dough sheets proximate the nip, and a means for transversely sealing and severing the tubes to form individual shaped and formed pieces such as a second set of counter rotating rolls (44, 46).

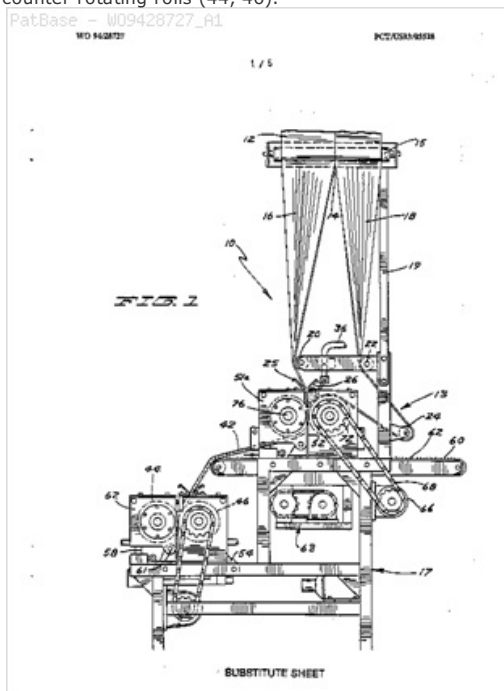
Classifications:

International (IPC 8-9): A21C11/24 A21C9/06 (Advanced/Invention); A21C11/00 A21C9/00 (Core/Invention)

International (IPC 1-7): A21C11/24 A21C9/06

CPC: A21C9/066 A21C11/24

European: A21C11/24 A21C9/06E



Family:

Publication number	Publication date	Application number	Application date
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WO9428727 A1	19941222	WO1993US05528	19930610

Priority:

WO1993US05528 19930610

Probable Assignee: GEN MILLS INC

Assignee(s): (std): GEN MILLS INC

Assignee(s): GENERAL MILLS INC

Inventor(s): (std): OELKE DUANE D ; ZIMMERMANN CRAIG E

Inventor(s): CRAIG E ZIMMERMANN ; DUANE D OELKE

Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CI CM CZ DE DK ES FI FR GA GB GN GR HU IE IT JP KP KZ LU MC MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SK SN TD TG UA VN

35) Family number: 19646314 (GB761709A)

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Title: Improvements in or relating to a method and machine for disintegrating a lithologic formation

Abstract: 761,709. Deep well bailers. DALINDA, J. Z. July 21, 1954, No. 21301/54. Class 102(2) [Also in Groups XX, XXI and XXXVI] A bailer for use in the formation of a bore hole in the earth comprises two hinged substantially semi-circular sections 32, 33 which when secured together about the hoist cable of a drilling machine form a cylindrical bucket 30. The bottom of the bucket is provided with dart valves and is recessed, the recess being provided with spiral fins 35, 36. The fins 35, 36 are engaged by a fin 34 on the top of the boring machine to correctly position the bailer with respect to the machine when they are in contact one with the other. The cylinder of a second form of bailer has diametrically opposed grooves formed in the curved surface to receive for guiding purposes two cables 138, 139 supporting the boring machine

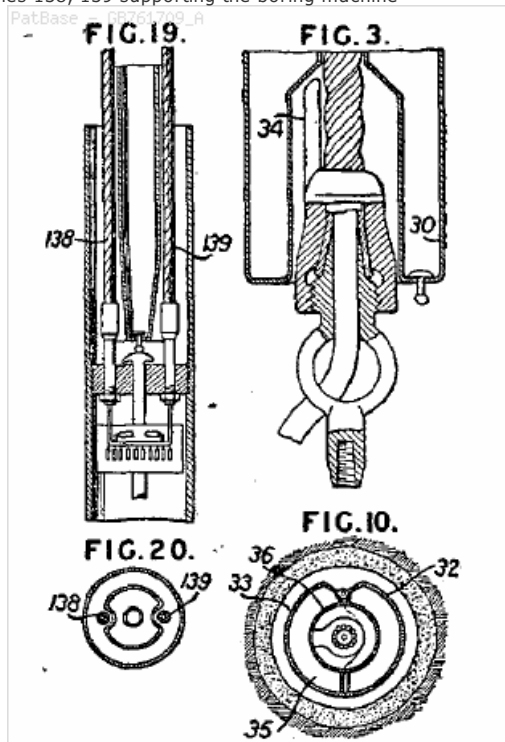
Classifications:

International (IPC 8-9): E21B7/15 (Advanced/Invention);
E21B7/14 (Core/Invention)

International (IPC 1-7): G01N33/24 G01V9/00

CPC: E21B7/15

European: E21B7/15



Family:

Publication number	Publication date	Application number	Application date
GB761709 A	19561121	GB19540021301	19540721

Priority:

GB19540021301 19540721

Probable Assignee: JOSEPH ZIONSON DALINDA

Assignee(s): (std): JOSEPH ZIONSON DALINDA

Inventor(s): (std): DALINDA JOSEPH ZIONSON ; LANGBERG EDWIN ; SPIRO ROMAN

36) Family number: 22519327 (US2623457A)

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Title: INTAGLIO PRINTING AND EMBOSING PRESS

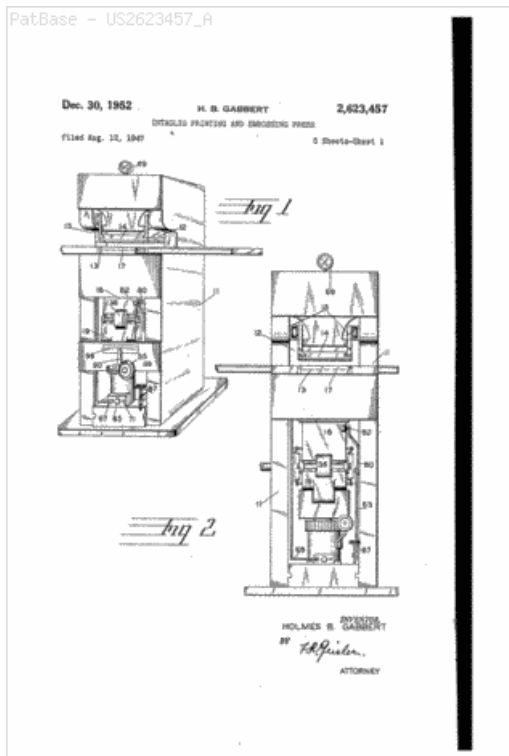
Abstract: 1. In a press of the character described, an element for producing a desired impression, a plunger located below said element and slidable up and down, upper and lower toggle members, said plunger normally connected with said upper toggle member, said upper and lower toggle members hingedly connected together, means for moving said toggle members alternately towards and away from alignment with each other, a hydraulic cylinder, a hydraulic piston within said cylinder and extending upward from cylinder, means connecting the bottom end of said lower toggle member and the upper end of said piston, a cap on the outside of said cylinder, said piston passing through said cap, limit means associated with said piston and cap to limit the upward movement of said piston with respect to said cap, means for raising or lowering said cap, an inlet valve for hydraulic fluid in the lower portion of said cylinder, a source of hydraulic fluid connected with said inlet valve, a pressure gauge connected with said cylinder, whereby the maximum upward travel of said plunger when actuated by said toggle members can be regulated by said cylinder, whereby the pressure transmitted through said plunger can be limited to a predetermined maximum.

Classifications:

CPC: B41F17/001 Y10T74/2147

European: 15D22

US: 101/163 101/3.1 101/316 74/583

**Family:**

Publication number	Publication date	Application number	Application date
US2623457 A	19521230	US19470768124	19470812

Priority:

US19470768124 19470812

Probable Assignee:

GABBERT HOLMES B

Assignee(s): (std):

GABBERT HOLMES B

Inventor(s): (std):

GABBERT HOLMES B

37) Family number: 20617329 (US2932088A)

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Title: PROGRAMING APPARATUS FOR MACHINE TOOLS

Abstract: 831,654. Drilling. FOSDICK MACHINE TOOL CO. Sept. 3, 1956, No. 26939/56. Class 83(3). A machine comprises abutments 23, 22, Figs. 34 and 40, on two relatively-movable elements 5, 7, a series of length-measuring rods 17, 18, 90-93, and means 61-66, Figs. 2 and 5, for selectively moving the rods between the abutments to provide a length-measurement equal to the sum of the lengths of the selected rods. A jig-boring machine comprises a slide 5 and a table 7 with identical measuring-devices 15, 16, having sets of conically-ended gauge-rods 17, 18, 20, Fig. 34, to give dimensions from 0.0000 to 49,9999 inches. The rods for the table 7 only will be described. Initially, the rods are set to a zero datum position by locating a base reference point 3 on the work 8 with reference to the axis of the drill 34. Subsequently, the table is moved to the left to clear the rods, the rods are selected, and the table is finally moved to the right to the required position by a hand wheel 10, or by a rapid traverse motor 25, Fig. 40, through a screw 11 and nut 12. In the latter case, the motor 25 is stopped towards the end of the traverse by a switch actuated by a shoulder 47, Fig. 38, on the rod 23, and a motor 26 completes the traverse by rotating the nut 12 through a splined rod 31 and worm-gearing 32, 33, 28. The motor 26 is stopped by a switch operated by an abutment 48 on the rod 23 and a lever 50. In its final position, the rod 23 operates a dial gauge 36 through a stop 42 and a block 43. The table movement required is set by the series of dials 61-66 which give a direct reading. The dials 63-66, giving the four decimal positions, actually contain the measuring-rods, the zero-rod of each set being 1 inch in length. The dial 62 for the one-inch rods 17 is connected to a hexagonal selector-shaft 71, Fig. 5, by gears 72. The one-inch rods 17 are carried in a turret 120, Fig. 31, movable with the table, and above the level of the ten-inch rods in their non-operative positions. Rotation of the dial 62 positions the appropriate one-inch rod in alignment with the end abutment-rod 22. The turret 120, together with the rod 22, are mounted for axial adjustment on the table in order initially to set the dial gauge 36 to zero position. Rotation of the dial 61 rotates gears 70, a crank 135 and a shaft 68 successively to raise the ten-inch rods to operative position through clutches A¹-D¹, Fig. 19, connected to elevating arms 142, 143. Each clutch becomes operative at a different angular position, and includes a torsion spring to take up excess rotation as the movement of its arm 142 is checked in the correct position by a set-screw. In a modification, the ten-inch rods are raised to operative position by a set of cams which rotate tubes which support the rods, and which can telescope together.

Classifications:

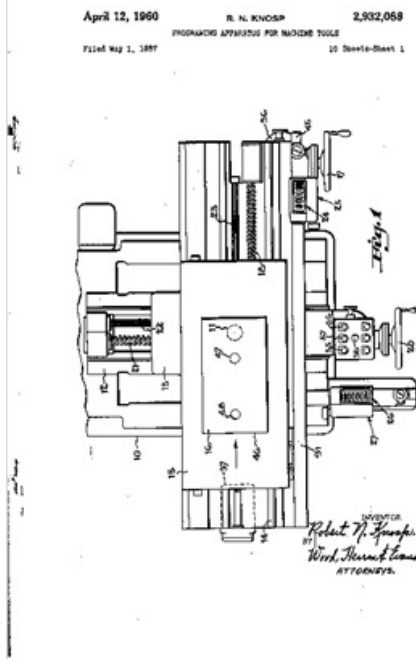
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B23Q16/00 G05B19/04 (Core/Invention)

International (IPC 1-7): B23B39/04 B23B39/08 F16H53/00 G01B5/00
G05B19/18

CPC: Y10T408/08 B23Q16/004 G05B19/0405 Y10T408/5617
Y10T409/3084

European: B23Q16/00L G05B19/04D

US: 33/1D 408/3 408/91 409/214

**Family:**

Publication number	Publication date	Application number	Application date
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GB893795 A	19620411	GB19580013987	19580501
US2908978 A	19591020	US19550485851	19550203
US2932088 A	19600412	US19570656322	19570501

Priority:

US19550485851 19550203 GB19560026939 19560903 US19570656322 19570501

Probable Assignee: FOSDICK MACHINE TOOL CO

Assignee(s): (std): FOSDICK MACHINE TOOL CO ; FOSDICK MACHINE TOOL COMPANY

Assignee(s): THE FOSDICK MACHINE TOOL COMPANY

Inventor(s): (std): KNOSP ROBERT N ; LINDEN CARL E ; WETZEL FRANK O

38) Family number: 22935330 (US3323273A)

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Title: PACKAGING APPARATUS AND PROCESS

Abstract: (Claim 1) Product packaging apparatus comprising, a continuously driven conveyor adapted to receive a wrapper blank, means for delivering the product to be formed and wrapped onto said wrapper blank, means continuously driven in synchronism and registration with said conveyor and actuable while said conveyor carries said blank through one -stage of its travel for compacting said product into a predetermined form while partially applying said blank around said form, means for folding the edges of said blank to completely enwrap the blank about said form, and means for sealing said edges to enclose the formed product within said wrapper blank.

Classifications:

International (IPC 8-9): B65B11/54 (Advanced/Invention);

B65B11/00 (Core/Invention)

International (IPC 1-7): B65B11/54

CPC: B65B11/54

European: B65B11/54

US: 53/133.7 53/221 53/372.8 53/389.2 53/389.4 53/412 53/436 53/464 53/528

Family:

Publication number	Publication date	Application number	Application date
DE4111102 A1	19921008	DE1991411102	19910405

Priority:

DE1991411102 19910405

Probable Assignee: FRAUNHOFER GES**Assignee(s):** (std): FRAUNHOFER GES ; FRAUNHOFER GES FORSCHUNG**Assignee(s):** FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWAN ; FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG EV 8000 MUENCHEN DE**Inventor(s):** (std): WOESSNER JOHANNES DIPL ING**Inventor(s):** WOESSNER JOHANNES DIPL ING 7000 STUTTGART DE**40) Family number: 20163352** (GB749892A)

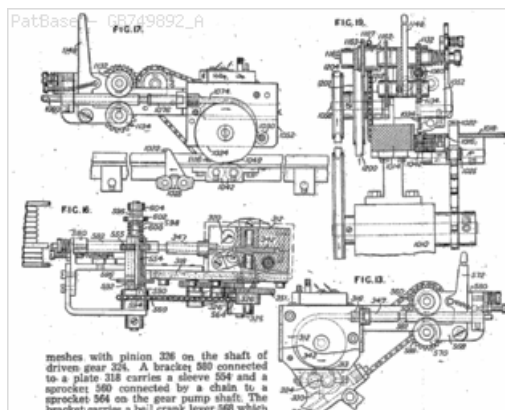
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Title: Improvements in or relating to apparatus for handling cement

Abstract: Apparatus for handling cement comprises a chamber housing a rotatable disc in close relation to the walls of the chamber and providing a passage for the cement connecting inlet and outlet openings, means for heating and for rotating the disc whereby heat is transferred through the walls of the chamber to the disc and the disc imparts heat to cement in the passage while tending to move the cement in a direction from the inlet opening to the outlet opening. The apparatus described is substantially the same as that described in Specification 544,010 [Group VIII], but the feed of cement is different and an application of the feed to a book tipping machine is described. The cement receptacle 312 has thermostatically controlled heating units 320 and a rotatable disc 342 mounted in the casing of the receptacle. The rod of cement is fed by rotating rolls 555, 570 through guides 347, 582 to a receptacle inlet 316 and to an aperture between the disc and casing to an outlet 313 having a gear pump 324 feeding the cement to a tube 330 leading to a passage 241. The disc is mounted on a shaft which has a gear 351 meshing with a pinion 3261 on the gear pump shaft 325. The pinion 3261 meshes with pinion 326 on the shaft of driven gear 324. A bracket 580 connected to a plate 318 carries a sleeve 554 and a sprocket 560 connected by a chain to a sprocket 564 on the gear pump shaft. The bracket carries a bell crank lever 568 which supports a feed roll 570 which is adjustably positioned against spring pressure by a handle 572. The sleeve 554 supporting the upper feed roll 555 has a gear 586 meshing with gear 588 on the shaft carrying the lower feed roll 570. A slip drive is provided comprising a pair of prongs 590 upon the hub of sprocket 560 engaged in a ring 592 resting against a gear 586 held by a head portion 594 which extends through sleeve 554 drawn inwardly by a spring 598 bearing against a collar 600 which rests against the hub of the feed roll, the other end of the spring rests against a nut 602 threaded on a rod 596 and adjustably held by a locknut 604. A book tipping machine comprises a stringer 1014 on a base 1010 and an endless chain 1025 with pawls 1022 for pushing signatures along rotates between spaced tables 1016 1018. The cement is applied by a disc 1034 below which are two grooved rollers 1042 and a spring finger 1048 in work engaging position. The disc 1034 is mounted in a casing 1052 and has cartridge heating units thermostatically controlled. The casing has a tangential passage 1074 connected with a tube 1076 through which a rod 1080 of cement is fed. A doctor 1090 is adjustably positioned close to the disc. A cement string severing finger 1116 is mounted adjacent the disc and is heated. The cement is delivered by feed rolls 1132, 1134 mounted in a bracket. The roller 1134 being adjustably mounted on a bell crank lever provided with a handle 1148. The bracket supports and pivot 1160 for hub 1162 of gear 1163 which meshes with a gear driven by sprocket 1167. A slip drive is provided between the hub 1162 and feed roll 1132. Power is supplied from a motor through a belt 1200 to a pulley 1202 on the disc shaft 1058 and connected by a belt 1204 to the book feeding chain. A chain 1212 drives the sprocket 1167 for the feed rollers from a sprocket on the disc shaft.

Classifications:**International (IPC 8-9):** B05C9/14 (Advanced/Invention);

B05C9/14 (Core/Invention)

International (IPC 1-7): A43D25/02 B42C9/00**CPC:** B05C9/14**European:** B05C9/14**Family:**

Publication number	Publication date	Application number	Application date
GB749892 A	19560606	GB19530035137	19531217

Priority:

19530106

Probable Assignee: BRITISH UNITED SHOE MACHINERY**Assignee(s):** (std): BRITISH UNITED SHOE MACHINERY**Assignee(s):** THE BRITISH UNITED SHOE MACHINERY COMPANY LIMITED**41) Family number: 31994385** (US2005130536A)

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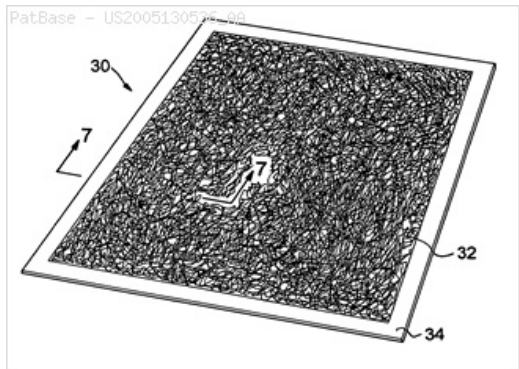
Title: DISPOSABLE SCRUBBING PRODUCT

Abstract: The present invention discloses a disposable scrubbing product for use in household cleaning or personal care applications. In one embodiment, the present invention is directed to a cleaning tool including a handle and a rigid base to which the scrubbing product of the present invention may be attached to form a convenient cleaning tool. The scrubbing product of the invention is a multi-layer laminate product and generally includes at least two distinct layers, an abrasive layer and an absorbent fibrous layer such as a layer tissue made from papermaking fibers, a layer of coform, an airlaid web, or combinations thereof. The abrasive layer is formed primarily of polymeric fibers in a disordered or random distribution as is

typical of fibers deposited in meltblown or spunbond processes so as to form an open, porous structure. In one embodiment, the abrasive layer comprises multifilamentary aggregate fibers. In one embodiment, the absorbent fibrous layer is an uncreped, through dried paper web.

Classifications:

International (IPC 8-9): A47L13/16 A47L13/17 B24D11/00 B24D11/02 B32B5/26 C11D17/04 D04H13/00 (Advanced/Invention); A47L13/16 B24D11/00 B24D11/02 B32B5/22 C11D17/04 D04H13/00 (Core/Invention)
International (IPC 1-7): A47L13/16 B24D11/00 B24D11/02 B32B5/26 C11D17/00 D04H1/00
CPC: Y10T442/60 Y10T442/659 A45D2200/1018 A45D2200/1036 A47L13/16 A47L13/17 B24D11/00 B24D11/02 D04H1/425 D04H1/4374 B32B5/06 B32B7/06 B32B7/12 B32B27/12 B32B2038/008 B32B2038/047 B32B2432/00 B32B2555/00 B32B5/26 C11D17/049
European: A47L13/16 A47L13/17 B24D11/00 B24D11/02 B32B5/26 C11D17/04F D04H13/00B2 K45D200/10B2 K45D200/10B6
US: 442/327 442/327P 442/381 442/381S 510/295 510/295S



Family:

Publication number	Publication date	Application number	Application date
AU2004304775 AA	20050707	AU20040304775	20040610
AU2004304775 BB	20100617	AU20040304775	20040610
DE602004029184 D1	20101028	DE200460029184T	20040610
EP1691660 A1	20060823	EP20040755191	20040610
EP1691660 B1	20100915	EP20040755191	20040610
US2005130536 AA	20050616	US20030733162	20031211
WO05060811 A1	20050707	WO2004US18877	20040610

Priority:

US20030733162 20031211 WO2004US18877 20040610

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): BEDNARZ JULIE MARIE ; CHEN FUNG JOU ; COTTER II JAMES A ; HEUER DANIEL JAMES ; KIMBERLY CLARK CO ; SIEBERS BRUCE MICHAEL ; LINDSAY JEFF ; ZHOU PEIGUANG

Assignee(s): KIMBERLY CLARK WORLDWIDE INC ; KIMBERLY CLARKE WORLDWIDE INC ; KIMBERLY CLARK CORP

Inventor(s): (std): BEDNARZ JULIE M ; BEDNARZ JULIE MARIE ; BRUCE MICHAEL SIEBERS ; CHEN FUNG JOU ; COTTER II JAMES A ; COTTER JAMES II ; DANIEL JAMES HEUER ; FUNG JOU CHEN ; HEUER DANIEL J ; HEUER DANIEL JAMES ; II JAMES A COTTER ; JEFF LINDSAY ; JULIE MARIE BEDNARZ ; LINDSAY JEFF ; PEIGUANG ZHOU ; COTTER JAMES A II ; SIEBERS BRUCE M ; SIEBERS BRUCE MICHAEL ; ZHOU PEIGUANG

Inventor(s): COTTER JAMES AII ; BEDNARZ JULIE ; SIEBERS BRUCE ; HEUER DANIEL ; COTTER JAMES ; COTTER JAMES A

Agent(s): SPRUSON AND FERGUSON; MABEY KATHERINE FRANCES; DORITY AND MANNING PA

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

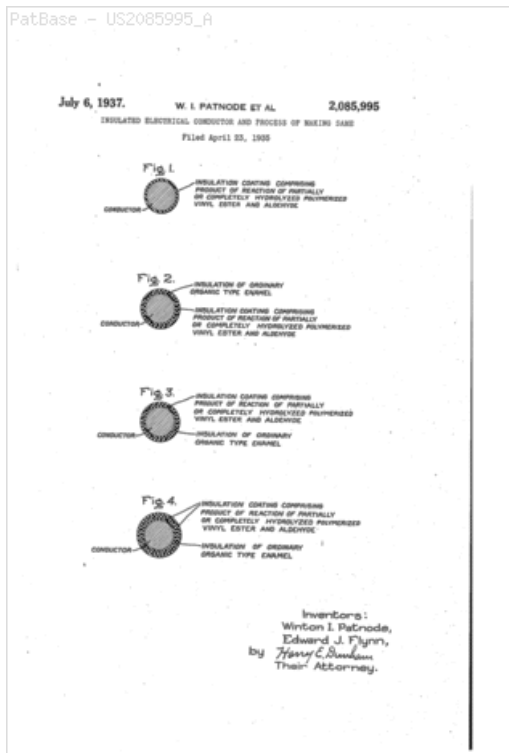
42) Family number: 21542399 (US2085995A) © PatBase

Title: INSULATED ELECTRICAL CONDUCTOR AND PROCESS OF MAKING SAME

Abstract: 1. An electrical conductor insulated with an organic insulation comprising the product of reaction of formaldehyde and hydrolyzed polymerized vinyl acetate, said product being heatreated to produce a hard, ilexible, tough abrasion-resistant insulation.

Classifications:

International (IPC 8-9): H01B3/30 (Advanced/Invention); H01B3/30 (Core/Invention)
International (IPC 1-7): H01B19/04 H01B3/18 H01B3/28 H01B3/42 H01F41/02 H01F41/12 H02K3/34
CPC: H01B3/308 Y10T428/2947 Y10T428/31699
European: H01B3/30F
US: 174/110SR 427/118 427/375 428/383 428/463

**Family:**

Publication number	Publication date	Application number	Application date
US2085995 A	19370706	US19350017796	19350423

Priority:

US19350017796 19350423

Probable Assignee: GEN ELECTRIC**Assignee(s):** (std) GEN ELECTRIC**Assignee(s):** GENERAL ELECTRIC CO ; GENERAL ELECTRIC COMPANY**Inventor(s):** (std) FLYNN EDWARD J ; PATNODE WINTON I**43) Family number: 21634409 (US2640799A)**

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Title: PROCESS OF CONTINUOUSLY UNITING RESIN IMPREGNATED CELLULOSIC WEBS FOR DECORATIVE COVERINGS

Abstract: (Claim 1) 1. The process of manufacturing, as a continuous operation, an extended length of laminated, sheet material consisting of a thermosetting resin of the unsaturated polyester type, which comprises the steps of drying a plurality of webs of fibrous material, impregnating said webs with a low viscosity, polyester resin which said resin is in the reacted, liquid state, effecting substantially complete removal of air from said webs, adjusting the resin content of said webs to a predetermined value, bringing said webs into superimposed relationship with each other, pressing the superimposed webs into immediate contact with a heated surface of large heat mass, maintaining said superimposed webs in adherent contact with said surface, at least until the resin in contact with said surface is thermoset, and finally relieving the sheet material from said surface.

Classifications:

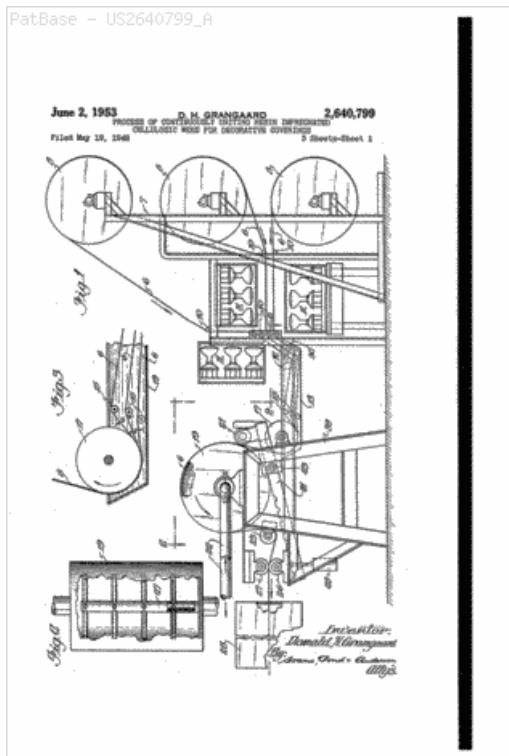
International (IPC 8-9): B32B27/00 (Advanced/Invention);
 B32B27/00 (Core/Invention)

International (IPC 1-7): B29D3/02 D21H3/60

CPC: B32B27/00 Y10T156/1732

European: B32B27/00

US: 156/324 156/332 156/551

**Family:**

Publication number	Publication date	Application number	Application date
US2640799 A	19530602	US19480027977	19480519

Priority:

US19480027977 19480519

Probable Assignee:

PAPER PATENTS CO

Assignee(s): (std):

PAPER PATENTS CO

Assignee(s):

PAPER PATENTS COMPANY

Inventor(s): (std):

GRANGAARD DONALD H

44) Family number: 28316411 (US2002150431A)

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Title: SOIL REDEPOSITION INHIBITON AGENTS AND SYSTEMS

Abstract: The present invention relates to soil redeposition inhibiting agents, soil redeposition inhibiting articles comprising such soil redeposition inhibiting agents, method for using such soil redeposition inhibiting articles for removing soils from dry or essentially dry fabrics, and systems employing said soil redeposition inhibiting agents such that soil is removed from dry or essentially dry fabrics exposed to the soil redeposition inhibiting agents.

Classifications:

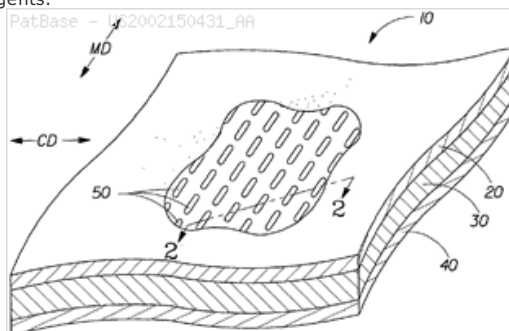
International (IPC 8-9): C11D17/04 C11D3/00 C11D3/12 D06L1/00 D06L1/04 (Advanced/Invention)

International (IPC 1-7): C11D3/00 D06F D06L1/00 D06L1/04 E02D3/00

CPC: C11D3/0036 C11D17/041 D06L1/00 D06L1/04

European: C11D17/04B C11D3/00B7 D06L1/00 D06L1/04

US: 252/8.62 252/86.2 252/862 405/258.1 405/258.100S 405/263 405/263S 405/302.7 405/302.700P 510/276 510/281 510/285 510/287 510/295 510/299 510/400 510/517 510/519 8/137 8/142 81/37 81/42

**Family:**

Publication number	Publication date	Application number	Application date
AU2002253937 AA	20020828	AU20020253937	20020212
US2002150431 AA	20021017	US20020074062	20020212
US7094748 BB	20060822	US20020074062	20020212
WO02064875 A2	20020822	WO2002US04142	20020212
WO02064875 A3	20021114	WO2002US04142	20020212
WO02064875 C1	20031224	WO2002US04142	20020212

Priority:

US20010268171P 20010212 US20020074062 20020212 WO2002US04142 20020212

Probable Assignee: PROCTER AND GAMBLE CO

Assignee(s): (std): SWIFT RONALD ALLEN ; WILLIAMS BARBARA KAY ; PROCTER AND GAMBLE

Assignee(s): PROCTER AND GAMBLE CO ; THE PROCTER AND GAMBLE COMPANY ; ROCKWELL PAMELA ANN ; VOLPENHEIN MATTHEW EDWARD ; COMBS MARY JANE ; DUVAL DEAN LARRY ; HUNT SHERI ANNE ;

OFOSU ASANTE KOFI ; PANCHERI EUGENE JOSEPH

Inventor(s): (std): COMBS MARY JANE ; DUVAL DEAN LARRY ; HUNT SHERI ANNE ; PANCHERI EUGENE JOSEPH ; ROCKWELL PAMELA ANN ; SWIFT II RONALD ALLEN ; SWIFT RONALD ALLEN ; VOLPENHEIN MATTHEW EDWARD ; WILLIAMS BARBARA KAY ; SWIFT RONALD ALLEN II ; SMITH MARY JANE ; OFOSU ASANTE KOFI

Inventor(s): PAMELA ANN ROCKWELL ; BARBARA KAY WILLIAMS ; RONALD ALLEN II SWIFT ; SHERI ANNE HUNT ; SWIFT ; II RONALD ALLEN ; KOFI OFOSU ASANTE ; MARY JANE SMITH ; MATTHEW EDWARD VOLPENHEIN ; EUGENE JOSEPH PANCHERI ; DEAN LARRY DUVAL

Agent(s): C BRANT; MARK A; KIM W

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

45) Family number: 22074412 (US2343006A)

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Title: Machine for making closure caps

Abstract: 1. In a device of the class described, the combination of means for supporting a blank having an intumed bead in the skirt thereon means for engaging portions of the bead at spaced intervals and for collapsing the bead in a vertical direction at said portions to form container engaging lugs from the bead, and radially expansible means for folding the bead outwardly against the inner wall of the skirt at portions intermediate the lugs. .

Classifications:

International (IPC 8-9): B21D51/44 B21D51/46 B21D51/48

B21D51/50 (Advanced/Invention);

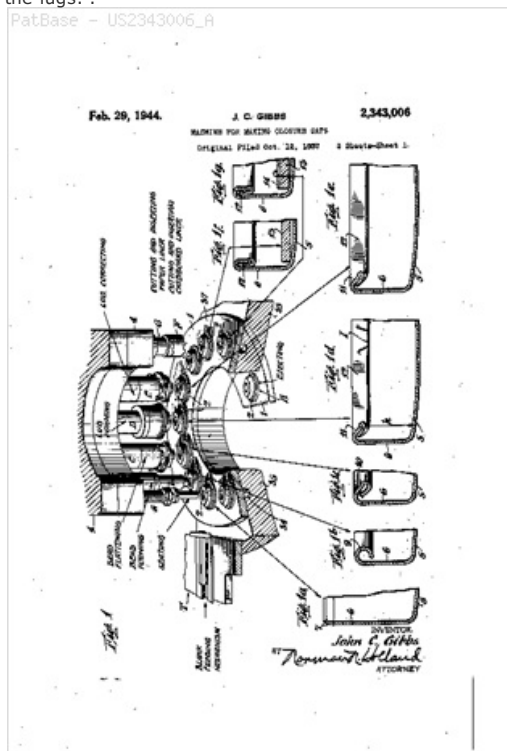
B21D51/38 (Core/Invention)

International (IPC 1-7): B21D51/50

CPC: B21D51/44 B21D51/46 B21D51/48 B21D51/50

European: B21D51/44 B21D51/46 B21D51/48 B21D51/50

US: 413/24 413/56 413/62 413/64 72/353.4 72/361 72/405.03 72/452.8



Family:

Publication number	Publication date	Application number	Application date
US2282959 A	19420512	US19370168536	19371012
US2343006 A	19440229	US19410413928	19411007

Priority:

US19370168536 19371012 US19410413928 19411007

Probable Assignee: ANCHOR HOCKING GLASS CORP

Assignee(s): (std): ANCHOR CAP AND CLOSURE CORP ; ANCHOR HOCKING GLASS CORP

Inventor(s): (std): GIBBS JOHN C

46) Family number: 44996416 (CO5690659A)

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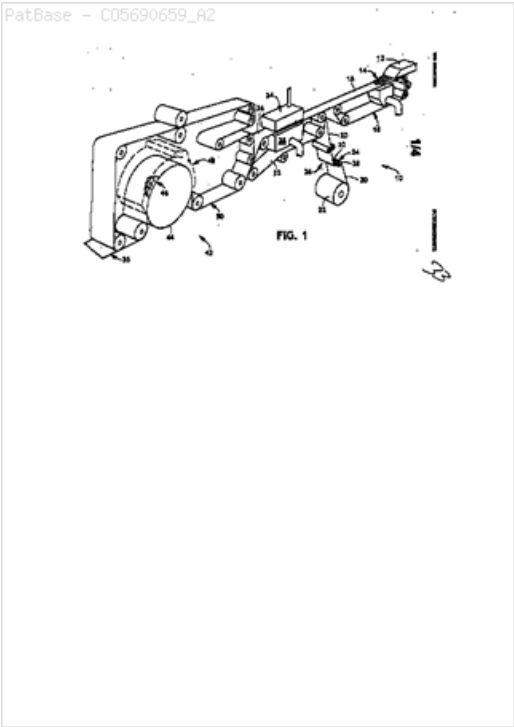
Title: TELA NO TEJIDA DE CAPAS MULTIPLES Nonwoven multilayer (Machine translation)

Abstract: Source: CO5690659A [ES] 1.- Una tela no tejida que comprende:una primera capa compuesta, dicha primera capa compuesta comprende de desde alrededor de 50 percent a alrededor de 90 percent por peso de las fibras cortas absorbentes no termoplasticas y de desde alrededor de 10 percent a alrededor de 50 percent por peso de las fibras termoplasticas, en donde una preponderancia de las fibras en una primera superficie exterior de la primera capa compuesta comprende fibras cortas absorbentes no termoplasticas, y ademas en donde una preponderancia de las fibras en una segunda superficie exterior de la primera capa compuesta comprende fibras termoplasticas,una segunda capa compuesta, dicha segunda capa compuesta comprende de desde alrededor de 50 percent a alrededor de 90 percent por peso de fibras cortas absorbentes no termoplasticas y de desde alrededor de 10 percent a alrededor de 50 percent por peso de fibras termoplasticas, en donde dicha segunda capa compuesta esta adyacente a dicha segunda superficie exterior de la primera capa compuesta, y las regiones unidas en donde una parte de dichas fibras termoplasticas de la primera capa compuesta son fundidas a una parte de dichas fibras termoplasticas de la segunda capa compuesta, y ademas en donde dichas regiones unidas tienen una pluralidad de huecos contiguos.2.- La tela no tejida tal y como se reivindica en la clausula 1 caracterizada porque las regiones unidas comprenden puntos de union discretos.3.- La tela no tejida tal y como se reivindica en la clausula

1 caracterizada porque dichas regiones unidas son esencialmente porosas en la direccion z.4.- La tela no tejida tal y como se reivindica en la clausula 1 caracterizada porque dichos huecos contiguos permiten un flujo substancial de los liquidos absorbidos dentro de las regiones unidas.5.- La tela no tejida tal y como se reivindica en la clausula 1 caracterizada porque las regiones unidas son esencialmente porosas en las direcciones x e y.6.- La tela no tejida tal y como se reivindica en la clausula 1 caracterizada porque dichas regiones unidas son esencialmente porosas en las direcciones x-, y-, y z-.

Machine translation: 1. A nonwoven fabric comprising: a first composite layer, said first composite layer comprising from about 50 percent to about 90 percent by weight non-thermoplastic absorbent staple fibers and from about 10 percent to about 50 percent by weight of the thermoplastic fibers, wherein a preponderance of the fibers at a first outer surface of the first composite layer comprising non- thermoplastic absorbent staple fibers, and further wherein a preponderance of the fibers on a second surface the first outer layer comprising thermoplastic composite fibers, a second layer composed, said second composite layer comprising from about 50 percent to about 90 percent by weight non-thermoplastic absorbent staple fibers and from about 10 percent to about 50 percent by weight thermoplastic fibers, wherein dicpa second composite layer is adjacent said second outer surface of the first composite layer, andthe bonded regions wherein a portion of said thermoplastic fibers of the first composite layer are fused to a portion of said fibers thermoplastic of the second composite layer, and further wherein said bonded regions have a plurality of recesses contiguos.2.- The nonwoven fabric as claimed in clause 1, wherein the bonded regions comprise discretos.3 junction points. - The nonwoven fabric as claimed in clause 1 wherein said bonded regions are substantially porous in the direction z.4.- The nonwoven fabric as claimed in clause 1, wherein said contiguous voids allow substantial flow of liquids absorbed within regions unidas.5.- The nonwoven fabric as claimed in clause 1, wherein the bonded regions are substantially porous in the x and y directions y.6.- The nonwoven fabric such and as claimed in clause 1 wherein said bonded regions are substantially porous in the x-, y- directions, and z -.

Classifications:
International (IPC 8-9): D04H13/00 (Advanced/Invention);
D04H13/00 (Core/Invention)



Family:

Publication number	Publication date	Application number	Application date
C05690659 A2	20061031	CO20050014185	20050216

Priority:

CO20050014185 20050216

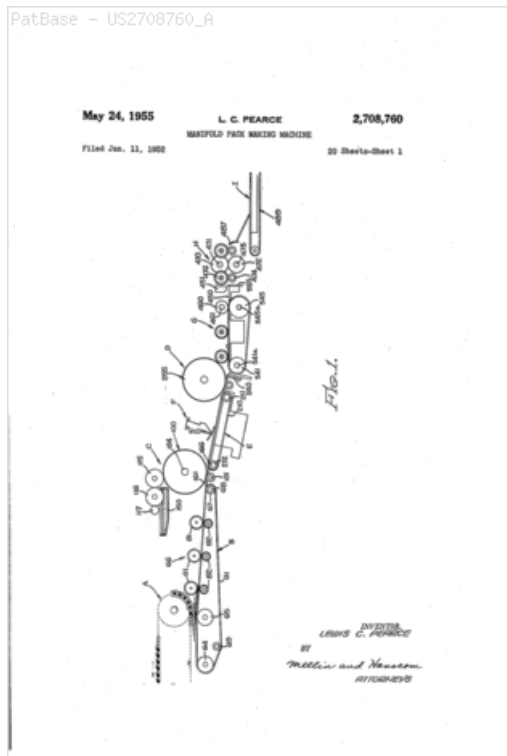
Probable Assignee: KIMBERLY CLARK CORP
Assignee(s): (std): KIMBERLY CLARK CO ; KIMBERLY CLARK CORP
Assignee(s): KIMBERLY CLARK WORLDWIDE INC
Inventor(s): (std): BROWN LAWRENCE M

47) Family number: 22523419 (US2708760A) © PatBase

Title: MANIFOLD PACK MAKING MACHINE

Abstract: (Claim 1) A machine of the class described for operating on a spread set of sheets, coniprising means for receiving and applyin.- an adhesive material to exposed portiois of a spread set of sheets, means operable in tin'led relption to operation of the last-named means for receiv_n- the treated set of sheets from the last-named means and arrangin.- them in registered fashion, and means operable to press the treated portions ol. the sheets to.aether.

Classifications:
International (IPC 8-9): B42C9/00 (Advanced/Invention);
B42C9/00 (Core/Invention)
International (IPC 1-7): B42C9/00
CPC: B42C9/0081
European: B42C9/00D
US: 118/211 118/220 118/236 270/58.08 270/59 412/10 412/12 412/37

**Family:**

Publication number	Publication date	Application number	Application date
US2708760 A	19550524	US19520266075	19520111

Priority:

US19520266075 19520111

Probable Assignee: PEARCE DEV CO**Assignee(s):** (std): PEARCE DEV CO ; PEARCE DEV COMPANY**Assignee(s):** PEARCE DEVELOPMENT CO ; PEARCE DEVELOPMENT COMPANY**Inventor(s):** (std): PEARCE LEWIS C**48) Family number: 59140424** (US2015126349A)

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Title: FLEXIBLE CONTAINERS AND METHODS OF FORMING THE SAME

Abstract: A method for sealing and cutting of a flexible material for forming a flexible container comprising a product volume and at least one structural support volume can include feeding at least two flexible material into a sealing apparatus comprising a sealing surface and an opposed anvil surface; contacting a seam region of the at least two flexible material with the sealing surface to form a seal in the seam region and cut the seal to form a seam in a single unit operation. The seal defines one or both of at least a portion of a boundary of the product volume and at least a portion of a boundary of the at least one structural support volume.

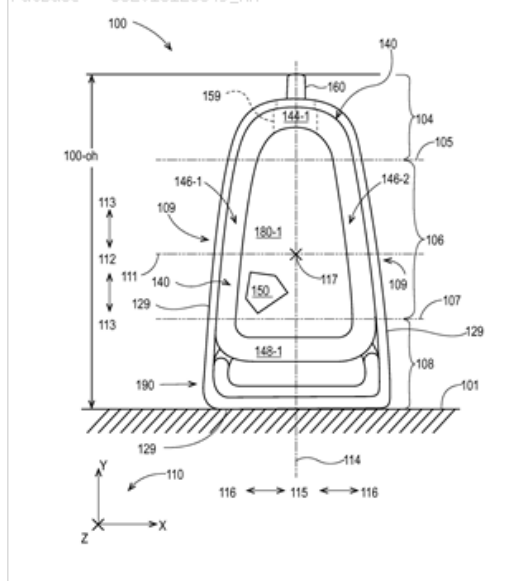
Classifications:

International (IPC 8-9): B31B29/60 B31B50/64 B31B70/60 B31B70/64 B32B37/06 B32B37/20 B32B38/00 B32B38/18 B65B1/02 B65B3/02 B65B5/02 B65D30/10 B65D33/02 B65D75/00 B65D75/08 B65D75/20 B65D75/52 B65D75/54 B65D75/56 B65D75/58 B65D81/03 (Advanced/Invention); B31B150/00 B31B160/20 B31B160/30 B31B70/00 B31B70/64 (Advanced/Non-invention)

CPC: B32B37/20 B32B38/0004 B32B37/06 B32B38/18 B32B2307/7242 B32B2309/02 B32B2439/46 B65D75/00 B31B70/008 B31B70/64 B31B2150/00 B31B2150/002 B31B2160/20 B31B2160/30 B65B1/02 B65B3/02 B65B5/02 B65D31/16 B65D33/02 B65D75/008 B65D75/20 B65D75/525 B65D75/54 B65D75/566 B65D75/5877 B65D75/5883 B65D81/03 B65D2205/02 Y10T156/1015 Y10T156/1049 Y10T156/1051 Y10T156/1054 Y10T156/1313 B31B70/60

US: 493/194 493/203

PatBase - US2015126349_AA

**Family:**

Publication number	Publication date	Application number	Application date
BR112016010210 A2	20170808	BR20161110210	20141106

CA2925705 AA	20160329	CA20142925705	20141106
CN105683060 A	20160615	CN201480060439	20141106
CN105683060 B	20180130	CN201480060439	20141106
DE602014021001 D1	20180315	DE201460021001T	20141106
EP3066021 A1	20160914	EP20140802556	20141106
EP3066021 B1	20180214	EP20140802556	20141106
ID201705540 A	20170526	ID2016P0002445	20141106
IN201617011065 A	20160812	IN201617011065	20160330
JP2017501060 T2	20170112	JP20160552475T	20141106
MX2016005518 A1	20160722	MX20160005518	20141106
US2015126349 AA	20150507	US20140534197	20141106
US9993986 BB	20180612	US20140534197	20141106
WO15069819 A1	20150514	WO2014US64207	20141106

Priority:

US20130900450P 20131106 EP20140802556 20141106 US20140534197 20141106
WO2014US64207 20141106

Probable Assignee: PROCTER AND GAMBLE CO

Assignee(s): (std): PROCTER AND GAMBLE

Assignee(s): PROCTER AND GAMBLE CO ; STANLEY SCOTT ; PROCTER AND GAMBLE CO CINCINNATI ; BOURGEOIS MARC ; CLARE BENJAMIN ; ISHIHARA TADAYOSHI ; LESTER JOSEPH ; PROCTOR AND GAMBLE CO

Inventor(s): (std): BENJAMIN CLARE ; BOURGEOIS MARC ; BOURGEOIS MARC ; CLARE BENJAMIN ; ISHIHARA TADAYOSHI ; ISHIHARA TADAYOSHI ; JOSEPH LESTER ; LESTER JOSEPH ; MARC BOURGEOIS ; SCOTT STANLEY ; STANLEY SCOTT ; TADAYOSHI ISHIHARA

Inventor(s): TADAYOSHI ISHIHARA ; STANLEY SCOTT CINCINNATI ; LESTER JOSEPH CINCINNATI ; ISHIHARA TADAYOSHI CINCINNATI ; CLARE BENJAMIN CINCINNATI ; BOURGEOIS MARC CINCINNATI

Agent(s): KIRBY EADES GALE BAKER; HOYNG ROKH MONEGIER LLP; ENGISCHE GAUTIER; MAULITTA PRAMULASARI; TANI AND ABE PC; CHARLES R; GUFFEY TIMOTHY B

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

49) Family number: 5020445 (US5113679A)

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Title: APPARATUS FOR CRIMPING ARTICLES

Abstract: An apparatus for crimping electrical connectors to cables. The apparatus generally has a ram, an anvil, an electrical ram position sensor, and a computer for at least partially controlling movement of the ram relative to the anvil. The computer can use the position sensor for monitoring the position or location of the ram. The apparatus can have a hydraulic system for moving the ram relative to the anvil and a hydraulic system deactivation valve with a plunger, an extension, means for biasing, and a computer controlled limiter for limiting movement of the plunger and/or extension. The apparatus can also have a pressure sensor for sensing pressure in the hydraulic drive system including two electrical switches and two plungers suitably connected to the hydraulic drive system and adapted to be moveable by hydraulic system pressure at different hydraulic system pressures such that the different hydraulic system pressures can be communicated to the computer by the plungers activating the electrical switches. In a preferred embodiment the apparatus is provided as a hand-held and hand operated crimper with a ram position sensor, a hydraulic drive system, an electrical hydraulic system pressure sensor, a hydraulic system deactivation valve, and a computer connected to the sensors and the valve for at least partially controlling operation of the crimper.

Classifications:

International (IPC 8-9): F15B15/28 H01R43/042

H01R43/048 (Advanced/Invention);

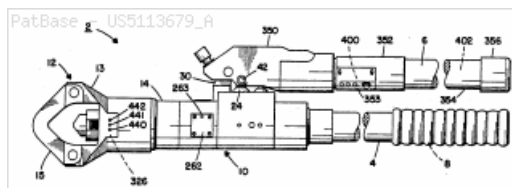
F15B15/00 H01R43/04 (Core/Invention)

International (IPC 1-7): B21D7/06

CPC: F15B15/2853 H01R43/0486 H01R43/042 H01R43/0427

European: F15B15/28C H01R43/042E H01R43/048F T01R43/042

US: 72/19.9 72/21 72/21.1 72/210 72/31 72/31.01 72/453.16



Family:

Publication number	Publication date	Application number	Application date
US5113679 A	19920519	US19900545478	19900627

Priority:

US19900545478 19900627

Probable Assignee: FCI USA INC

Assignee(s): (std): BURNDY CORP

Assignee(s): FCI USA INC ; LOREX IND ; LOREX IND INC

Inventor(s): (std): NAGER JR URS F ; LOGUE RAYMOND C ; LEE PATRICK S ; FERRARO NEIL P ; CHEN EDWARD J

50) Family number: 11368452 (US5265500A)

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Title: METHOD OF MAKING SHOCK-RESISTANT AND WEAR-RESISTANT TOOLS OF COMPOSITE STEEL STRUCTURE

Abstract: A method of making a shock-resistant and wear-resistant composite steel tool comprises providing a steel tool body having a working edge, and providing a working part material of nonporous wrought steel in an unhardened state which is hardenable to a hardness greater than that of the body. The working part material, in its unhardened state, is fused by welding to the working edge of the tool body while being pressed forcibly against the working edge. After the fusion step, the outer surface of the working part material is hardened to a hardness greater than that of the body of the tool, the depth of penetration of such hardening being limited to the region immediately adjoining the outer surface of the material so that the underlying region of the working part remains ductile, and the weld is normalized thereby increasing its ductility and resultant

shock resistance. The method is adaptable for economical high production of saw blades, cutting bits, and other tools of composite steel structure having hardened cutting tips or other hardened working parts.

Classifications:

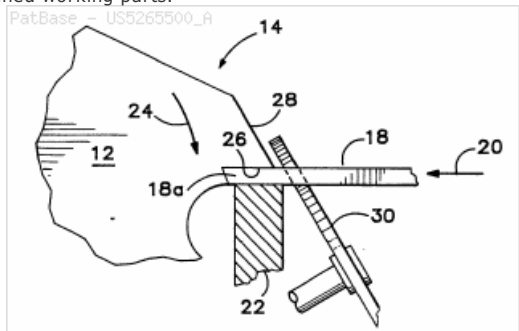
International (ipc 8-9): B23D65/00 B23K33/00
B23P15/28 (Advanced/Invention);
B23D65/00 B23K33/00 B23P15/28 (Core/Invention)

International (ipc 1-7): B23D65/00

CPC: Y10S76/02 B23P15/28 B23D65/00 B23K33/00

European: B23D65/00 B23K33/00 B23P15/28

US: 76/108.1 76/112 76/DIG.2



Family:

Publication number	Publication date	Application number	Application date
US5265500 A	19931130	US19930003010	19930111

Priority:

US19930003010 19930111

Probable Assignee: DALEX INC

Assignee(s): (std): DALEX INC

Inventor(s): (std): GUNZNER FRED G ; LANNING JOHN A

51) Family number: 19461457 (US2714500A)

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Title: IMPACT DRILL

Abstract: Apparatus for counter-currently contacting a gas or vapour with a fluidized solid comprises a tower divided into superimposed chambers by perforated plates 6-9 through which the gas ascends, downcomers 11-13 placed alternatively at opposite sides of the tower and each having its entrance above the level of the discharge end of the downcomer at the opposite side of the same chamber thereby causing a bed of fluidized solid to flow across each chamber, and one or more series of vertical or inclined baffles 14, 15 arranged parallel to one another across the path of the flowing solid. When several rows of baffles 15 are used, they may be staggered across the path of the gases. The baffles may be rotatable about horizontal shafts coinciding with their longitudinal axis 14a or one edge 15a and mechanism (not shown) may be provided for varying their inclinations in unison. The apparatus is applicable to catalytic reactions such as the cracking of hydrocarbons, and to the separation of gases by solid absorbents.

Classifications:

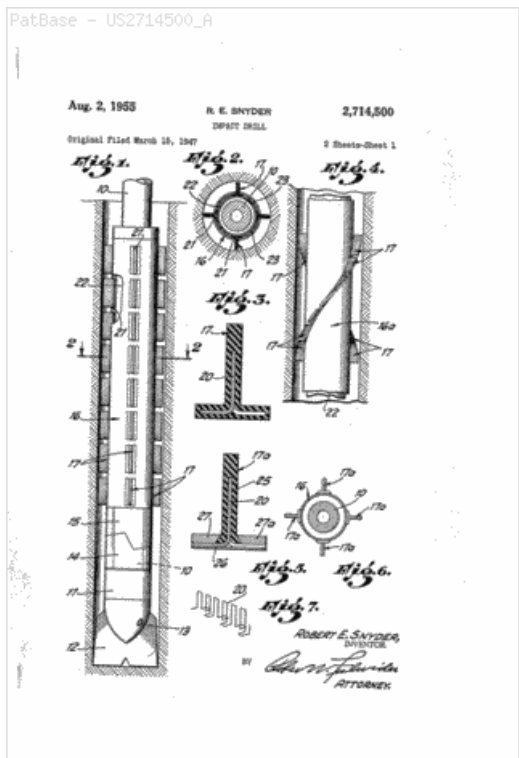
International (ipc 8-9): B01J8/36 E21B4/10 (Advanced/Invention);
B01J8/24 E21B4/00 (Core/Invention)

International (ipc 1-7): B01D53/12 B01J8/24 B01J8/34 B28D1/14
C22B1/10 E21B1/06 F26B3/08

CPC: B01J8/36 E21B4/10

European: B01J8/36 E21B4/10

US: 175/298 175/323 175/324



Family:

Publication number	Publication date	Application number	Application date
DE937768 A	19560112	DE1953ST05801	19530101
FR1072564 A	19540914		19521223
GB714037 A	19540818	GB19520029691	19521124
US2714500 A	19550802	US19520270189	19520206

Priority:

US19520270189 19520206

Probable Assignee: SNYDER OIL TOOL CORP

Assignee(s): (std): SNYDER OIL TOOL CORP ; STANDARD OIL DEV CO
Assignee(s): STANDARD OIL DEVELOPMENT CO
Inventor(s): (std): SNYDER ROBERT E

52) Family number: 48274466 (US2011030709A)

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Title: MATERIALS, EQUIPMENT, AND METHODS FOR MANUFACTURING CIGARETTES

Abstract: Cigarettes are manufactured using modified automated cigarette making apparatus. Those cigarettes possess smokable rods having wrapping paper having additive materials applied thereto as patterns. The additive materials, which can include a starch and/or a polymer, are applied to a continuous paper web either online or offline the cigarette making apparatus. The formulation can be applied to the paper web using application apparatus possessing a series of rollers. In particular, a wrapping paper for a smokable rod can include a pattern of bands having a water-insoluble material comprising a starch ester, a starch-coated inorganic filler, and/or a thermoplastic polymer in an amount such that the material is sufficiently deformable so as to (a) reduce an amount of pressure to apply the bands, (b) decrease paper diffusivity, and (c) maintain paper opacity at a level acceptable for commercial production of the smokable rods.

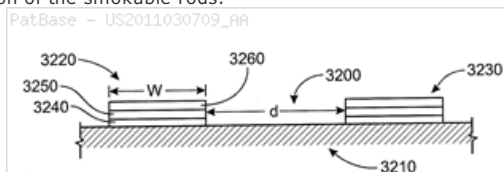
Classifications:

International (IPC 8-9): A24C5/00 A24C5/34 A24D1/02 B05D1/36 B05D5/00 B32B3/10 D21H11/00 D21H13/00 D21H15/00 D21H17/00 D21H19/00 D21H21/00 D21H23/00 D21H25/00 D21H27/00 (Advanced/Invention)

CPC: A24C5/005 A24C5/34 A24D1/025 Y10T428/24355

European: A24C5/00P A24C5/34 A24D1/02B

US: 1/1 131/365 427/258 427/258S 427/286 427/286S 427/600 427/600S 428/141 428/141S



Family:

Publication number	Publication date	Application number	Application date
US2011030709 AA	20110210	US20090537840	20090807
US9220297 BB	20151229	US20090537840	20090807

Priority:

US20090537840 20090807

Probable Assignee: RJ REYNOLDS TOBACCO CO

Assignee(s): (std): CHAPMAN PAUL STUART ; FOOR SCOTT WILLIAM ; NORMAN ALAN BENSON ; OGLESBY ROBERT LESLIE ; SEBASTIAN ANDRIES D ; REYNOLDS TOBACCO CO R

Assignee(s): RJ REYNOLDS TOBACCO CO ; R J REYNOLDS TOBACCO CO

Inventor(s): (std): CHAPMAN PAUL STUART ; FOOR SCOTT WILLIAM ; NORMAN ALAN BENSON ; OGLESBY ROBERT LESLIE ; SEBASTIAN ANDRIES D

Agent(s): KILPATRICK STOCKTON LLP; KILPATRICK TOWNSEND AND STOCKTON LLP

53) Family number: 20637470 (GB460347A)

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Title: Improvements in and relating to insulated electric conductors and methods of making the same

Abstract: Electric cables are coated with a product of reaction of an aldehyde with a partially or completely hydrolyzed vinyl ester and, if desired, a coating of an organic enamel either above or below the polyvinyl acetal coating. The acetal coating may be put on by means of an enamel or alternatively a tape may be wound on. In an example a polyvinyl acetal made by treating a solution of polyvinyl acetate in glacial acetic acid with formalin and sulphuric acid is applied to a wire in solutions in dioxane, ethylene dichloride, chloroform, furfural or a mixture of monochlorobenzene and ethyl alcohol. In the Specification as open to inspection, drawings show the coating of a wire with one, two or three coatings. Reference has been directed by the Comptroller to Specifications 378,608, 405,986, [both in Group III], 409,507, and 416,413.

Classifications:

International (IPC 8-9): H01B7/28 (Advanced/Invention); H01B7/17 (Core/Invention)

International (IPC 1-7): H01B3/42

CPC: H01B7/28

European: H01B7/28

Family:

Publication number	Publication date	Application number	Application date
GB460347 A	19370126	GB19360011615	19360423

Probable Assignee: BRITISH THOMSON HOUSTON CO LTD

Assignee(s): (std): BRITISH THOMSON HOUSTON CO LTD

Assignee(s): THE BRITISH THOMSON HOUSTON COMPANY LIMITED

54) Family number: 45165472 (US2011236332A)

© PatBase

Title: COSMETIC METHOD USING A COMPOSITION CONTAINING SILOXANE RESINS AND POWDER DYE

Abstract: The invention relates to a cosmetic method for making-up and/or caring for keratin materials, whereby a cosmetic composition is applied to the keratin materials, in particular the skin and lips, preferably the skin, said cosmetic composition comprising siloxane resins and a powder dye that has been surface treated with a hydrophobic agent. In particular, the invention relates to compositions used to care for or make-up the aforementioned keratin materials.

Classifications:

International (IPC 8-9): A45D40/00 A45D40/18 A61K31/74 A61K31/80 A61K8/00 A61K8/02 A61K8/06 A61K8/11 A61K8/25 A61K8/31 A61K8/37 A61K8/58 A61K8/81 A61K8/89 A61K8/891 A61K8/894 A61K8/90 A61K8/92 A61Q1/00 A61Q1/02 A61Q1/04 A61Q1/06 A61Q1/08 A61Q1/10 A61Q1/12 A61Q19/00 A61Q3/00 A61Q3/02 A61Q5/00 B65D71/00 (Advanced/Invention);

A61Q1/00 (Advanced/Non-invention);

A61K8/00 A61K8/04 A61K8/11 A61K8/19 A61K8/30 A61K8/72 A61K8/92 A61Q1/00 A61Q1/02 A61Q1/12 (Core/Invention)
CPC: A61K8/585 A61K8/06 A61K8/064 A61K8/891 A61K8/894 A61K2800/594 A61Q1/02 A61Q1/06 A61Q1/10 A61Q1/12
European: A61K8/06 A61K8/06B A61K8/58C A61K8/891 A61K8/894 A61Q1/02 A61Q1/06 A61Q1/10 A61Q1/12 K61K201/21
K61K800/594
US: 1/1 132/286 132/286S 132/317 132/317S 206/581 206/581S 424/401 424/61 424/61P 424/63 424/63P 424/64 424/64S
424/69 424/70.12 424/70.121 424/70.121P 424/70.121S 424/78.03 424/78.030P 424/78.030S 514/772.3 514/772.300S

Family:

Publication number	Publication date	Application number	Application date
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DE602009030565 D1	20150521	DE200960030565T	20091202
EP2358345 A2	20110824	EP20090801480	20091202
EP2358345 B1	20150408	EP20090801480	20091202
EP2358346 A2	20110824	EP20090801484	20091202
EP2358347 A2	20110824	EP20090801486	20091202
EP2358347 B1	20140226	EP20090801486	20091202
EP2373279 A2	20111012	EP20090801490	20091202
EP2373284 A2	20111012	EP20090801489	20091202
EP2373285 A2	20111012	EP20090803804	20091202
ES2466968 T3	20140611	ES20090801486T	20091202
ES2536738 T3	20150528	ES20090801480T	20091202
FR2939033 A1	20100604	FR20080058195	20081202
FR2939033 B1	20120831	FR20080058195	20081202
US2011236332 AA	20110929	US20090132214	20091202
US2011236341 AA	20110929	US20090132195	20091202
US2011236342 AA	20110929	US20090132203	20091202
US2012003167 AA	20120105	US20090132251	20091202
US2012014899 AA	20120119	US20090132173	20091202
US2012064019 AA	20120315	US20090132085	20091202
US2012100089 AA	20120426	US20090132497	20091202
US8747828 BB	20140610	US20090132203	20091202
US9017705 BB	20150428	US20090132195	20091202
US9050270 BB	20150609	US20090132173	20091202
WO10063952 A2	20100610	WO2009FR52376	20091202
WO10063952 A3	20100729	WO2009FR52376	20091202
WO10063954 A2	20100610	WO2009FR52381	20091202
WO10063954 A3	20100930	WO2009FR52381	20091202
WO10063955 A2	20100610	WO2009FR52382	20091202
WO10063955 A3	20100729	WO2009FR52382	20091202
WO10063957 A2	20100610	WO2009FR52384	20091202
WO10063957 A3	20120202	WO2009FR52384	20091202
WO10063958 A2	20100610	WO2009FR52385	20091202
WO10063958 A3	20100729	WO2009FR52385	20091202
WO10063959 A2	20100610	WO2009FR52386	20091202
WO10063959 A3	20120202	WO2009FR52386	20091202
WO10063960 A2	20100610	WO2009FR52387	20091202
WO10063960 A3	20100729	WO2009FR52387	20091202
WO10063961 A2	20100610	WO2009FR52388	20091202
WO10063961 A3	20100805	WO2009FR52388	20091202
WO10063962 A2	20100610	WO2009FR52389	20091202
WO10063962 A3	20100826	WO2009FR52389	20091202
WO10063963 A2	20100610	WO2009FR52390	20091202
WO10063963 A3	20100805	WO2009FR52390	20091202
WO10063964 A2	20100610	WO2009FR52391	20091202
WO10063964 A3	20120202	WO2009FR52391	20091202
WO10063965 A2	20100610	WO2009FR52392	20091202
WO10063965 A3	20110616	WO2009FR52392	20091202
WO10063966 A2	20100610	WO2009FR52393	20091202
WO10063966 A3	20100923	WO2009FR52393	20091202
WO10063966 A9	20101014	WO2009FR52393	20091202
WO10063967 A2	20100610	WO2009FR52394	20091202
WO10063967 A3	20110616	WO2009FR52394	20091202
WO10063968 A2	20100610	WO2009FR52395	20091202
WO10063968 A3	20110630	WO2009FR52395	20091202

Priority:

FR20080058195	20081202	US20080120863P	20081209	EP20090801480	20091202
EP20090801486	20091202	US20090132173	20091202	US20090132085	20091202
WO2009FR52381	20091202	WO2009FR52382	20091202	US20090132195	20091202
US20090132203	20091202	US20090132214	20091202	WO2009FR52384	20091202
US20090132251	20091202	US20090132497	20091202	WO2009FR52387	20091202
WO2009FR52389	20091202	WO2009FR52395	20091202	WO2009FR52393	20091202

Probable Assignee: LOREAL SA

Assignee(s): (std): ARDITTY STEPHANE ; BARBA CLAUDIA ; CAVAZZUTI ROBERTO ; DOP FLORENCE ; OREAL ; KERGOSIEN GUILLAUME ; MANET SYLVIE ; FERRARI VERONIQUE ; OREAL L ; RICARD AUDREY

Assignee(s): LOREAL SA ; LOREAL ; L OREAL

Inventor(s): (std): DOP FLORENCE ; CAVAZZUTI ROBERTO ; BARBA CLAUDIA ; FERRARI VERONIQUE ; RICARD AUDREY ; ARDITTY STEPHANE ; KERGOSIEN GUILLAUME ; MONDET JEAN ; MANET SYLVIE

Inventor(s): FLORENCE DOP ; STEPHANE ARDITTY ; JEAN MONDET ; CLAUDIA BARBA

Agent(s): DEHMELE AND BETTENHAUSEN PATENTANWALTE PARTMBB; TEZIER HERMAN BEATRICE; LEONARD ARMELLE; VALLEJO JUAN PEDRO; DE ELZABURU ALBERTO; LOREAL; OBLON SPIVAK MCCLELLAND MAIER AND NEUSTADT LLP; OBLON MCCLELLAND MAIER AND NEUSTADT LLP; GOUDET SYLVAIN; TEZIER HERMAN BEATRICE ET AL; KROMER CHRISTOPHE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

55) Family number: 30669480 (US2004121121A)

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Title: ENTANGLED FABRICS CONTAINING AN APERTURED NONWOVEN WEB

Abstract: A composite fabric that includes an apertured nonwoven web hydraulically entangled with a fibrous component is provided. The apertured nonwoven web contains thermoplastic fibers and the fibrous component comprises greater than about 50 percent by weight of the fabric. Excellent liquid handling properties can be achieved in accordance with the present invention. The entangled fabric of the present invention can also have improved bulk, softness, and capillary tension.

Classifications:

International (IPC 8-9): A47L13/16 B26D7/14 B26F1/24 B32B5/26 B32B7/08 D04H1/42 D04H1/46 D04H13/00 D04H3/16 D21F11/00 (Advanced/Invention);

D04H1/42 D04H13/00 D04H3/14 (Advanced/Non-invention);

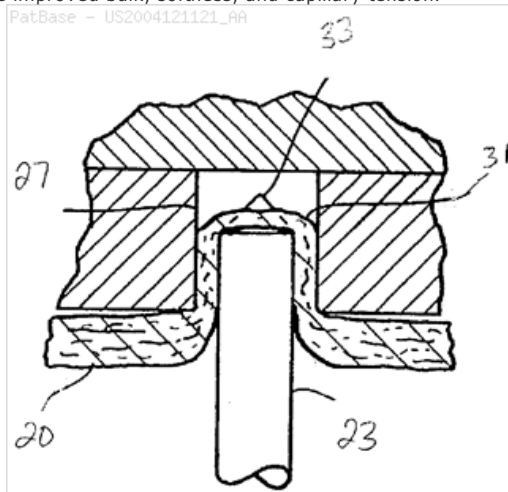
A47L13/16 B26D7/08 B26F1/00 D04H1/42 D04H1/46 D04H13/00 D04H3/16 D21F11/00 (Core/Invention)

International (IPC 1-7): A47L13/16 B32B3/10 B32B5/26 B32B7/08 D04H1/42 D04H13/00 D04H3/14

CPC: Y10T428/24273 B26D7/14 B26F1/24 D04H1/425 D04H1/498 D04H3/14 D04H5/03 D21F11/006

European: B26D7/14 B26F1/24 D04H13/00B3 D04H13/00B3B D21F11/00E

US: 428/131



Family:

Publication number	Publication date	Application number	Application date
AU2003273323 AA	20040729	AU20030273323	20030912
BRPI0317083 A	20051025	BR2003PI17083	20030912
CA2508790 AA	20050606	CA20032508790	20030912
CN1714190 A	20051228	CN20038025536	20030912
EP1576221 A1	20050921	EP20030755823	20030912
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KR20050088371 A	20050905	KR20057010074	20030912
MXPA05006007 A1	20050818	MX2005PA06007	20030912
RU2005117386 A	20060120	RU20050117386	20030912
US2004121121 AA	20040624	US20020328846	20021223
WO04061185 A1	20040722	WO2003US28824	20030912

Priority:

US20020328846 20021223 WO2003US28824 20030912

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): KIMBERLY CLARK CO

Assignee(s): KIMBERLY CLARK CORP ; KIMBERLY CLARK WORLDWIDE INC ; VARONA EUGENIO ; ANDERSON RALPH

Inventor(s): (std): EUGENIO ANDERSON RALPH VARONA ; EUGENIO GO VARONA ; EUGENIO VARONA ; ANDERSON RALPH ; ANDERSON RALPH L ; RALPH L ANDERSON ; VARONA EUGENIO

Inventor(s): ANDERSON RALPH VARONA EUGENIO ; RALPH ANDERSON

Agent(s): FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS; HERBERT SMITH FREEHILLS; FREEHILLS PATENT ATTORNEY S; FPA PATENT ATTORNEYS PTY LTD; BORDEN LADNER GERVAIS LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

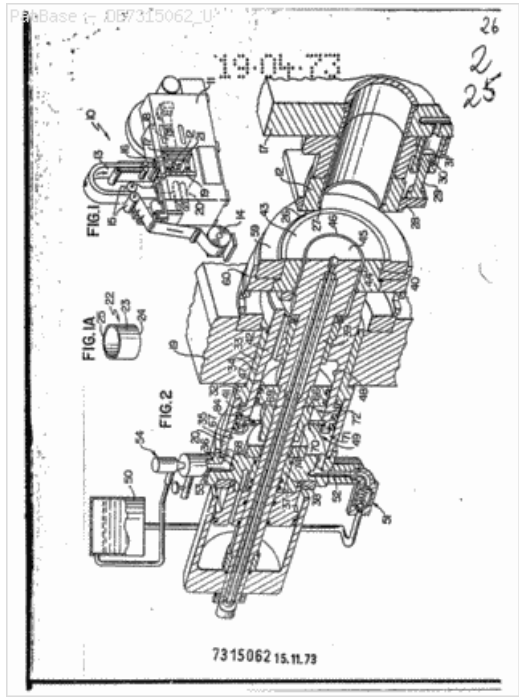
56) Family number: 16236480 (DE7315062U)

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Abstract: Source: DE7315062U [DE] (Claim 1) 1. Vorrichtung zum Ziehen eines Gegenstands aus einem Material- zuschnitt, der zwischen zusammenwirkenden Ziehorganen ange- ordnet wird und aus diesen durch einen beweglichen Presskolben, der sich relativ zu den Ziehorganen bewegen laesst, gezogen wer- den kann, wobei did Vorrichtung mit einer einzigen Fluessig- keitskammer ausgestattet ist, die Kolbenteile eines der Zieh- organe und des Presskolbens enthaelt, und wobei ferner die Re- lativbewegung zwischen der Vorrichtung und dem einen Ziehor- gan in einer Richtung die den Ziehvorgang an dem Zuschnitt verursachende Bewegung des Presskolbens hervorruft, die infor- ge der Fluessigkeitswirkung zwischen den in der Fluessigkeit- kammer befindlichen Kolbenteilen zustandekommt, dadurch g e k e n n z e i o h n e t, dass Drossel- und Trennmittel (66,67) an mindestens einem der Kolbenteile (41, 47) vorge- sehen und in der Fluessigkeitskammer (49) angeordnet sind, dass die Drossel- und Trennmittel (66, 67) die Fluessigkeit zur Ausuebung einer Kraft auf den Kolbenteil (41) des einen Zieh- organs (40) veranlassen, die groesser ist als die Kraft, die auf diesen Kolbenteil (41) des Ziehorgans (40) durch den Wi- derstand des Zuschnitts (61) gegen die auf ihn ausgeuebte Zieh- wirkung des Presskolbens (39) ausgeuebt wird,-zumindest waehrend eines Teils des Ziehvorgangs zwischen Zuschnitt und Presskol- ben - und daS die Drossel- und Trennmittel (66,67) in der Kammer (49) diese in zwei Teilkammern (71,72) aufteilen, wo- bei die FIUssigkeit in der einen Teilkammer (71) vor allem auf den Kolbenteil (41) des einen Ziehorgans (40) einwirkt.

Machine translation: (Claim 1) 1 Apparatus for drawing an object from a material blank, between cooperating drawing organs are arranged and is made of these movable by a plunger which can move relative to the handle bodies, drawn who- the can, and did device with a single liquid- equipped keitskammer is, contains the reciprocating parts of the die-making bodies and the plunger, and which also causes the relative movement between the device and the one in the direction of the drawing process Ziehor-gan at the cutting-causing movement of the plunger, the infol- GE is the Fluessigkeitswirkung between in the liquid chamber located piston parts comes about because gekennzeichnet that throttling and separating means (66,67) at least one of the piston parts (41, 47) must be included and are arranged in the Fluessigkeitskammer (49), that cause the throttle and release agent (66, 67) the fluid to exert a force on the piston member (41) of a drag-organs (40), which is larger than the force exerted on this piston part (41) of the drawing organ (exercised 40) through the resistor of the blank (61) against the force applied to him pulling effect of the ram (39) is-at least during a portion of the drawing process between cutting and ben Presskol - and the the throttle and release agent (66,67) in the chamber (49) split them into two chambers (71,72), where-in the liquid acts in the chamber part (71) mainly due to the piston member (41) of a drawing organ (40).

Classifications:
International (IPC 8-9): B21D24/14 (Advanced/Invention);
B21D24/00 (Core/Invention)
International (IPC 1-7): B21D24/14



Family:

Publication number	Publication date	Application number	Application date
DE7315062 U	19731115	DE19730115062U	19730419

Probable Assignee: REYNOLDS METALS CO
Assignee(s): REYNOLDS METALS CO

57) Family number: 34661481 (ES1044176Y)

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Title: INSTALACION AUXILIAR PARA EQUIPOS DE MATRICES PROGRESIVAS.

Abstract: Source: ES1044176U [ES] 1. Instalacion auxiliar para equipos de matrices progresivas que comprende unos medios de guiado, elevacion y soporte (3, 4, 5, 6) de una banda/banda elaborada (7) a tratar, y unos elementos de apoyo susceptibles de elevar la citada banda/banda elaborada (7) respecto a la sufridera (2) de la matriz o de separar la parte superior (1) de la matriz de dicha banda/banda elaborada (7) caracterizada porque todos los medios de guiado, elevacion y soporte (3, 4, 5, 6) comprenden un organo susceptible de absorber elasticamente, actuando a modo de cojin sustentador, los esfuerzos de la parte activa de la matriz al actuar sobre la banda/banda elaborada (7) y a la vez recuperar su posicion inicial una vez dicha parte activa se eleva o la banda/banda elaborada (7) abandona la instalacion, y ademas porque se encuentran cada uno de los citados medios (3, 4, 5, 6) de guiado, elevacion y soporte, amovibles y fijados a una de las placas de la matriz por al menos una porcion extrema.

Machine translation: 1. Auxiliary installation for progressive matrices comprising guide means (3, 4, 5, lifting and supporting a band (7 6)/band made) to be treated, and support elements susceptible to raise the said band (7) with respect to the anvil made/band (2) of the matrix or to separate the upper part (1) of the matrix of said strip/band (7) made characterized in that all the guide means (3, 4, 5 lifting and supporting, 6) comprise a body capable of absorbing elastically, acting as a cushion sustainer, the efforts of the active part of the matrix to the Act on the band/band (7) made at the same time recovering its initial position once said active portion is (7) band/band elaborate raised or leaves the installation, and also because they are each 3, 4, 5, said means (6) for guiding, lifting and supporting, removable and fixed to one of the plates of the matrix by at least one end portion.

Classifications:
International (IPC 8-9): B30B15/30 (Advanced/Invention);
B30B15/30 (Core/Invention)
International (IPC 1-7): B30B15/30

ES 1 044 176 U

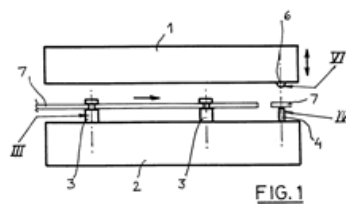


FIG. 1

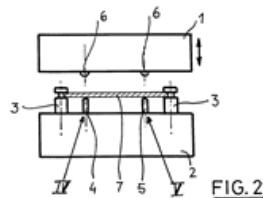


FIG. 2

5

Family:

Publication number	Publication date	Application number	Application date
ES1044176 UA	20000301	ES19990002304U	19990907
ES1044176 Y1	20000816	ES19990002304U	19990907
ES1044176 YA	20000816	ES19990002304U	19990907

Priority:

ES19990002304U 19990907

Probable Assignee:

MARTINEZ FERNANDEZ ANTONIO

Assignee(s): (std):

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Inventor(s): (std):

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58) Family number: 29367492 (US5846588A)

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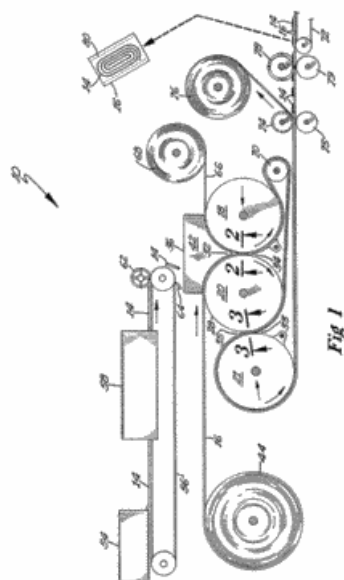
Title: FOOD ITEM FABRICATING APPARATUS AND METHODS

Abstract: Apparatus (10) is disclosed including first and second forming rollers (18, 21) which rotatably abut with an anvil roller (20). The forming rollers (18, 21) each include a periphery forming a continuous forming surface including a plurality of axially and circumferentially spaced patterns each formed including depressions (196, 198) and/or grooves (24). Food (14) is simultaneously fed by a saddle (36, 36') between a continuous strip of support material (16) and a continuous ribbon of film material (66) as they pass between a first abutment nip of the first forming roller (18) and the anvil roller (20). In a preferred form, the saddle (36') is in the form of a block having a trough (24) supplied by food under pressure. Radially disposed barriers (132) divide the trough (24) into axial portions. Radially disposed dividing walls (136) having lower tapering surfaces (138) and an axially disposed dividing wall (148) having a radially spaced lower end divide the trough (24) into volumes for receiving different foods (14a, 14b) to produce food items including integral food zones where the different foods (14a, 14b) are not intermixed. An applicator (160) applies a thin layer of edible oil to the film material (66) prior to and on the side opposite of the forming roller (18) to provide more consistent and/or easier separation of the film material (66) from the food (14).

Classifications:**International (IPC 8-9):** A23L1/00 A23L1/06 A23P1/08

A23P1/10 (Advanced/Invention)

International (IPC 1-7): A23L1/00 A23P1/00 B65B63/00**CPC:** A23L21/10 A23P20/20 A23P30/10**European:** A23L1/00P10 A23L1/00P8E A23L1/06 A23P1/08E A23P1/10B**US:** 425/102 425/366 425/373 426/104 426/115 426/125 426/132 426/414 426/415 426/420 426/512 426/517 53/122 53/428 53/435 53/453 53/514 53/559 99/450.1

**Family:**

Publication number	Publication date	Application number	Application date
US5846588 A	19981208	US19970835895	19970414
US5876777 A	19990302	US19980144620	19980831
US5942268 A	19990824	US19980206714	19981207

Priority:

US19970835895 19970414 US19980144620 19980831 US19980206714 19981207

Probable Assignee: GENERAL MILLS INC

Assignee(s): (std): GEN MILLS INC

Assignee(s): GENERAL MILLS INC

Inventor(s): (std): BENHAM RICHARD O ; HOLMSTROM JULIE L ; ZIMMERMANN CRAIG E

59) Family number: 33076494 (US2006128247A)

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Title: EMBOSSED NONWOVEN FABRIC

Abstract: A three-dimensional hydraulically entangled nonwoven composite structure made of nonwoven fibrous web and a fibrous material integrated in the nonwoven fibrous web by hydraulic entanglement is disclosed. The nonwoven composite structure has a greater ability to maintain an embossed pattern when wet and has the ability for the structure to recover after it has been compressed, to a greater degree than previously found. Also disclosed is a method of making an embossed hydraulically entangled nonwoven composite fabric.

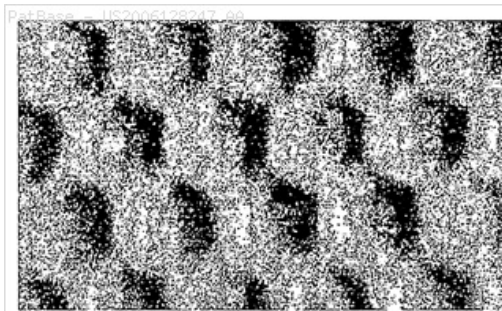
Classifications:

International (IPC 8-9): B32B21/02 B32B3/30 B32B5/26 B32B7/08 B44C1/24 D04H1/425 D04H1/4266 D04H13/00 D04H3/10 D04H3/16 D04H5/02 D04H5/03 D06C23/00 D06C23/04 D06C29/00 D21H11/00 D21H13/00 D21H15/00 (Advanced/Invention); D04H13/00 D04H3/10 D04H5/02 (Advanced/Non-invention); B32B21/00 B32B3/30 B32B5/22 B32B7/08 B44C1/00 D04H13/00 D04H3/08 D04H3/16 D04H5/00 D06C23/00 D06C29/00 (Core/Invention); D04H (Subclass/Invention)

CPC: Y10T428/24612 Y10T442/659 Y10T442/66 Y10T442/663 Y10T442/664 Y10T442/689 D04H1/54 D04H1/407 D04H1/485 D04H1/49 D04H1/492 D04H1/498 D04H3/14

European: D04H13/00B3B D04H13/00B5

US: 162/361 162/362 264/103 428/172 442/381 442/382 442/384 442/385 442/408

**Family:**

Publication number	Publication date	Application number	Application date
AU2005317061 AA	20060622	AU20050317061	20050928
AU2005317061 BB	20110811	AU20050317061	20050928
BRPI0516613 A	20080916	BR2005PI16613	20050928
CA2583814 AA	20070413	CA20052583814	20050928
CA2583814 C	20140211	CA20052583814	20050928
CN101076630 A	20071121	CN200580042518	20050928
CN101076630 B	20100505	CN200580042518	20050928
CR9061 A	20071204	CR20070009061	20070419
DE602005036218 D1	20121115	DE200560036218T	20050928
EP1825048 A1	20070829	EP20050798721	20050928

EP1825048 B1	20120919	EP20050798721	20050928
IL182217 A0	20070920	IL20050182217	20050928
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JP5063360 B2	20121031	JP20070545446T	20050928
KR101262398 B1	20130509	KR20077013298	20050928
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MX2007007126 A1	20070713	MX20070007126	20050928
RU2007121926 A	20090127	RU20070121926	20050928
RU2392363 C2	20100620	RU20070121926	20050928
US2006128247 AA	20060615	US20040011677	20041214
US2009123707 AA	20090514	US20080337171	20081217
US8425729 BB	20130423	US20080337171	20081217
WO06065315 A1	20060622	WO2005US34658	20050928
ZA200702689 A	20080827	ZA20070002689	20050928

Priority:

US20040011677 20041214 EP20050798721 20050928 WO2005US34658 20050928
US20080337171 20081217

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Inventor(s): (std): BROWN LAWRENCE M ; THOMASCHEFSKY CRAIG F ; THOMASCHEFSKY CRAIG FARRELL ; TOMASZEWSKI C F ; SICU H ; HENRY SKOOG ; FARRELL THOMASCHEFSKY CRAIG ; BROWN L M ; TOMASZEFSKI KREJG FARRELL ; SKUG GENRI ; SKOOG HENRY ; BRAUN LOURENS M ; SICU H TOMASZEWSKI C F BROWN L

Inventor(s): THOMASCHEFSKY CRAIG ; BROWN LAWRENCE ; BROWN LAWRENCE M ROSWELL ; THOMASCHEFSKY CRAIG FARRELL MARIETTA ; SKOOG HENRY ROSWELL ; CRAIG FARRELL THOMASCHEFSKY ; LAWRENCE M BROWN

Agent(s): SPRUSON AND FERGUSON; FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS; HERBERT SMITH FREEHILLS; FREEHILLS PATENT ATTORNEY S; BORDEN LADNER GERVAIS LLP; ZIMMERMANN AND PARTNER PATENTANWALTE MBB; MABEY KATHERINE FRANCES; KIMBERLY CLARK WORLDWIDE INC; KIMBERLY CLARK WORLDWIDE INC CATHERINE E WOLF; NANCY M; RALPH H

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KR KZ LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

60) Family number: 20998494 (US2175342A)

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Title: BRIQUETTE MAKING MACHINE

Abstract: 1. In a briquette making machine, upper and lower complementary die portions arranged to be moved alternately apart and together, load responsive means arranged to so move said die portions, means for charging said die portions with material to be formed into briquettes including a feed housing so located as to maintain a body of material in position to enter the lower die pore tion when presented to said housing, means for feeding material to said housing, and variable speed driving means for the feeding means, there being connections from said load responsive means for adjusting said driving means _in accordance with the force necessary to move said die portions.

Classifications:

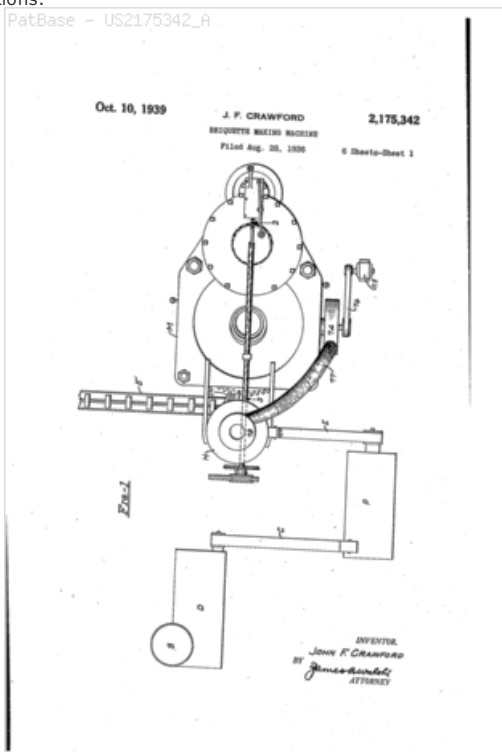
International (IPC 8-9): B30B11/08 B30B3/04 (Advanced/Invention); B30B11/02 B30B3/00 (Core/Invention)

CPC: B30B3/045 B30B11/08 Y10S100/907

European: B30B11/08 B30B3/04B

US: 100/907 425/107 425/145 425/154 425/217 425/236 44/634

PatBase - US2175342_A



Family:

Publication number	Publication date	Application number	Application date
US2175342 A	19391010	US19360098334	19360828

Priority:

US19360098334 19360828

Probable Assignee:

CASE CO J I

Assignee(s): (std):

CASE CO J I

Assignee(s):

J I CASE CO ; J I CASE COMPANY

Inventor(s): (std):

CRAWFORD JOHN F

61) Family number: 30669500 (US2004121158A)

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Title: WIPING PRODUCTS HAVING A LOW COEFFICIENT OF FRICTION IN THE WET STATE AND PROCESS FOR PRODUCING SAME

Abstract: Base sheets are disclosed having a reduced coefficient of friction in the wet state. In accordance with the present invention, the base sheets can be treated with a high molecular weight polyethylene oxide, a derivatized polyethylene oxide or an acrylate copolymer containing polyethylene moieties. The base sheet can be single ply or multi-ply. The base sheet can be a tissue product, such as a facial tissue, a bath tissue, or a paper towel. Alternatively, the base sheet can be a pre-moistened wipe.

Classifications:

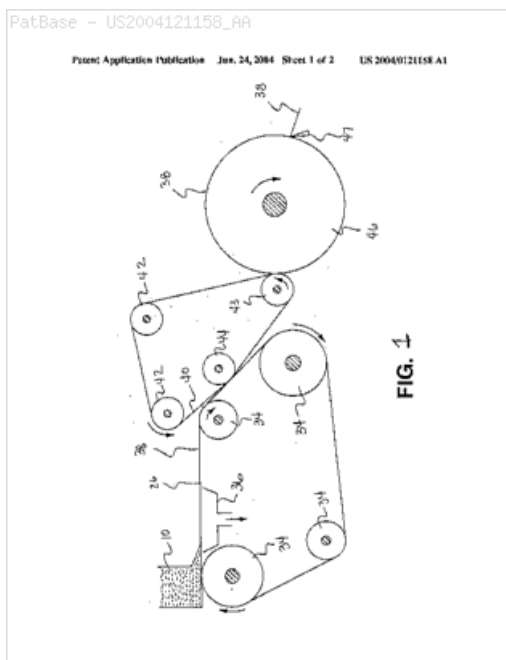
International (IPC 8-9): A47K10/16 B32B27/38 D21H17/53 D21H21/14 D21H27/00 (Advanced/Invention); D21H17/53 D21H17/69 D21H27/00 (Advanced/Non-invention); D21H17/00 D21H21/14 (Core/Invention); D21H27/00 (Core/Non-invention)

International (IPC 1-7): B32B27/38 D21H17/53 D21H17/69

CPC: Y10T428/31511 D21H27/001 D21H17/53

European: D21H17/53 N21H27/00B

US: 162/109 162/135 162/158 162/164.1 162/164.6 162/168.1 162/168.2 162/179 404/402 428/413



Family:

Publication number	Publication date	Application number	Application date
AU2003285134 AA	20040729	AU20030285134	20031103
AU2003285134 BB	20090423	AU20030285134	20031103
BRPI0317046 A	20051025	BR2003PI17046	20031103
CA2508807 AA	20050606	CA20032508807	20031103
DE60339623 D1	20120301	DE20036039623	20031103
EP1573128 A1	20050914	EP20030779454	20031103
EP1573128 B1	20120104	EP20030779454	20031103
KR20050084129 A	20050826	KR20057010051	20031103
MXPA05005887 A1	20050829	MX2005PA05887	20031103
TW200424063 A	20041116	TW20030133736	20031201
TWI230659 B	20050411	TW20030133736	20031201
US2004121158 AA	20040624	US20020325461	20021220
US7147751 BB	20061212	US20020325461	20021220
WO04061228 A1	20040722	WO2003US34899	20031103

Priority:

US20020325461 20021220

EP20030779454 20031103

WO2003US34899 20031103

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Assignee(s): KIMBERLY CLARK CORP ; KIMBERLY CLARK WORLDWIDE INC ; SHANNON THOMAS G ; SOERENS DAVID A

Inventor(s): (std): SHANNON THOMAS G ; SHANNON TOM G ; SOERENS DAVE ; SOERENS DAVID A ; DAVID A SOERENS

Inventor(s): DAVID ASOERENS ; SOERENS DAVID A NEENAH ; THOMAS G SHANNON ; SHANNON THOMAS G NEENAH

Agent(s): SPRUSON AND FERGUSON; BORDEN LADNER GERVAIS LLP; BEACHAM ANNABEL ROSE; DORITY AND MANNING PA

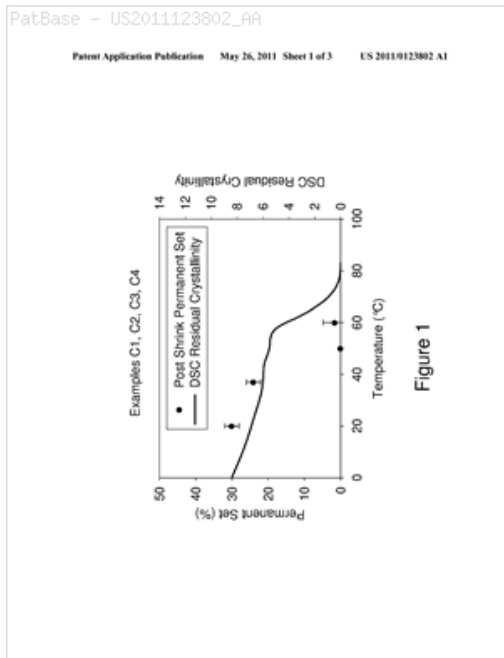
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Title: POLYOLEFIN COMPOSITIONS SUITABLE FOR ELASTIC ARTICLES

Abstract: The present invention describes an elastic article comprising at least one low crystallinity polymer layer and optionally a high crystallinity polymer layer. The low crystallinity polymer layer comprises a low crystallinity polymer and optionally an additional polymer. The optional high crystallinity polymer layer comprises a high crystallinity polymer having a melting point within about 50 degrees centigrade of the melting point of the low crystallinity polymer. The article is elongated at a temperature below the melting point of the low crystallinity polymer and the optional high crystallinity polymer in at least one direction to an elongation of at least about 50 percent of its original length or width. Subsequently, the article may be heat-shrunk at a temperature not greater than 10 degrees centigrade above the melting point of the low crystallinity polymer.

Classifications:

International (IPC 8-9): B32B27/02 B32B27/08 B32B27/12 B32B27/32 C08F110/02 C08F110/06 C08F293/00 C08J5/18 C08L23/08 C08L23/10 (Advanced/Invention); B32B27/12 B32B27/32 C08J5/18 C08L23/00 (Core/Invention)
CPC: Y10T428/2967 C08L53/02 B32B7/02 B32B27/08 C08J5/18 C08J2323/02 C08L23/04 C08L23/08 C08L23/10 C08L53/00 C08L53/025 Y10T428/31913 B32B5/022 B32B5/024 B32B5/26 B32B7/12 B32B27/12 B32B27/30 B32B27/32 B32B2270/00 B32B2274/00 B32B2307/51 B32B2307/704 B32B2307/736 B32B2555/00
European: B32B25/08 B32B27/08 B32B7/02 C08J5/18 C08L23/04 C08L23/08 C08L23/10 C08L53/00 C08L53/02 C08L53/02B M08J323/02 M08L23/04 M08L23/10
US: 428/394 428/394P 428/516 428/516S 525/323 525/323S 526/351 526/351S 526/352 526/352S



Family:

Publication number	Publication date	Application number	Application date
BRPI0911011 A2	20151006	BR2009PI11011	20090715
CN102149756 A	20110810	CN200980135466	20090715
EP2303954 A2	20110406	EP20090790443	20090715
MX2011000723 A1	20110729	MX20110000723	20090715
US2011123802 AA	20110526	US20090054599	20090715
WO10009202 A2	20100121	WO2009US50643	20090715
WO10009202 A3	20100415	WO2009US50643	20090715

Priority:

US20080081979P 20080718 US20090054599 20090715 WO2009US50643 20090715

Probable Assignee: DOW GLOBAL TECHNOLOGIES LLC

Assignee(s): (std): CHANG ANDY ; DOW GLOBAL TECHNOLOGIES INC ; DOW GLOBAL TECHNOLOGIES LLC ; PATEL RAJEN ; TRAHAN MONICA

Inventor(s): (std): PATEL RAJEN ; CHANG ANDY ; TRAHAN MONICA ; CHANG ANDY C ; TRAHAN MONICA A ; PATEL RAJEN M ; ANDY CHANG ; RAJEN PATEL ; MONICA TRAHAN

Agent(s): RAYNOR JOHN; KRUPP STEPHEN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

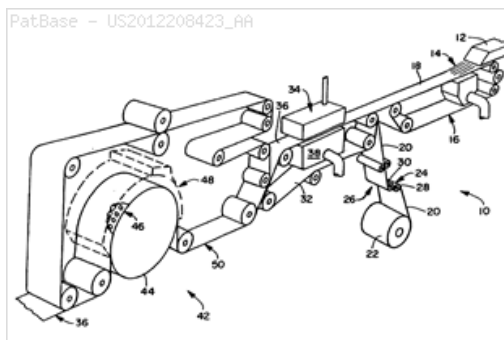
Title: LAMINATED NONWOVEN FABRIC

Abstract: The present invention provides a nonwoven laminate having a first composite layer and a second composite layer. Both the first composite and second composite layers contain staple fibers and substantially continuous thermoplastic fibers. The each of the first and second composite layers have a first outer surface and a second outer surface, wherein a preponderance of the fibers at the first outer surface are the substantially continuous thermoplastic fibers, and a preponderance of the fibers at the second outer surface are the staple fibers. In addition, the second outer surface of the first composite layer is adjacent said one of the first or second outer faces of the second composite layer such that the first outer surface of the first composite layer forms a first side of the nonwoven laminate.

Classifications:

International (IPC 8-9): B32B5/26 (Advanced/Invention)
CPC: B32B5/26 B32B5/022 B32B5/08 B32B5/10 B32B7/02 B32B2250/02 B32B2250/20 B32B2262/0253 B32B2262/067 B32B2307/538 B32B2307/718 B32B2307/726 B32B2307/728 B32B2307/73 B32B2432/00 Y10T442/659 Y10T442/666
European: B32B5/02A B32B5/08 B32B5/10 B32B5/26 B32B7/02

L32B250/02 L32B250/20 L32B262/02H L32B262/06A2 L32B307/538
L32B307/718 L32B307/726 L32B307/728 L32B307/730 L32B432/00
US: 442/381 442/381S 442/387 442/387P



Family:

Publication number	Publication date	Application number	Application date
US2012208423 AA	20120816	US20110028371	20110216

Priority:

US20110028371 20110216

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): KEMPPINEN JUHA P ; MALLORY MARY FRANCES

Assignee(s): KIMBERLY CLARK CORP ; KIMBERLY CLARK WORLDWIDE INC

Inventor(s): (std): KEMPPINEN JUHA P ; MALLORY MARY FRANCES

64) Family number: 29580552 (US6355583B)

© PatBase

Title: MULTI-FUNCTIONAL SORBENT MATERIAL

Abstract: A versatile sorbent material is provided comprising a fibrous sheet having applied thereto a wetting chemistry comprising (i) a poly glycoside; (ii) a fatty acid ester ethoxylate; and (iii) one or more surfactants selected from the group consisting of alkyl and aryl alcohol ethoxylates, alkyl sulfonates and sulfates, alcohol ether sulfates, alkyl phosphates and phosphonates, alkyl sulfo succinates and sulfated fatty acid esters. A sorbent material is provided having excellent electrical resistivity and good absorption properties for a broad range of liquids including paraffin oil, water, sulfuric acid and sodium hydroxide.

Classifications:

International (IPC 8-9): B01J20/26 B01J20/28

B01J20/32 (Advanced/Invention);

B01J20/26 (Advanced/Non-invention);

B01J20/22 B01J20/28 B01J20/30 (Core/Invention)

International (IPC 1-7): B01J20/26 B01J20/28 B01J20/32 B32B27/04

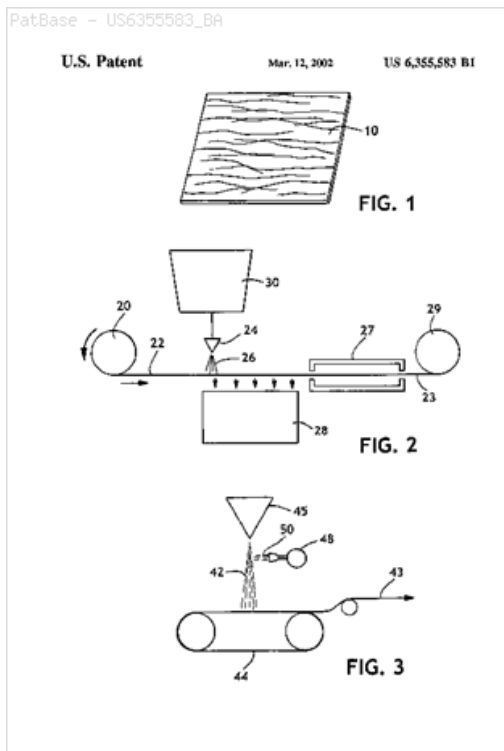
CPC: Y10T428/249955 Y10T442/2418 Y10T442/2484 Y10T442/2508

B01J20/28033 B01J20/26 B01J20/28023 B01J20/321 B01J20/3272

B01J20/3274 B01J20/3291

European: B01J20/26 B01J20/28D24 B01J20/28D8 B01J20/32

US: 428/306.6 442/110 442/118 442/121 510/422 510/438



Family:

Publication number	Publication date	Application number	Application date
AU199942230 A1	19991220	AU19990042230	19990528
AU744711 B2	20020228	AU19990042230	19990528
BRPI9910751 A	20010213	BR1999PI10751	19990528
CN1162217 C	20040818	CN19998006852	19990528
CN1303319 A	20010711	CN19998006852	19990528
DE69923678 D1	20050317	DE19996023678	19990528
DE69923678 D1	20050317	DE19996023678T	19990528
DE69923678 T2	20050707	DE19996023678T	19990528
EP1083987 A1	20010321	EP19990926065	19990528
EP1083987 B1	20050209	EP19990926065	19990528
ES2234260 T3	20050616	ES19990926065T	19990528

KR100577138 B1	20060510	KR20007013450	19990528
KR20010052438 A	20010625	KR20007013450	19990528
US6355583 BA	20020312	US19990320034	19990526
WO9962631 A1	19991209	WO1999US12016	19990528

Priority:

US19980087384P 19980530 US19990320034 19990526 WO1999US12016 19990528
KR20007013450 20001129

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): KIMBERLY CLARK CO ; KIMBERLY CLARK CORP ; KIMBERLY CLARK WORLDWIDE INC

Inventor(s): (std): A YAHIAOUI ; A YAHIAOUI GH ADAM ; ADAM HAMMAN ; ALI YAHIAOUI ; GABRIEL HAMMAN ADAM ; GH ADAM ; YAHIAOUI ALI ; YAHIAOUI A ; ADAM GABRIEL HAMMAN ; ADAM G H ; ADAM A YAHIAOUI G H

Inventor(s): A YAHIAOUI G H ADAM ; G H ADAM

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD

Designated states: AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT UA UG UZ VN YU ZA ZW

65) Family number: 21599553 (FR1220395A)

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Title: APPAREIL DISTRIBUTEUR DE LIQUIDE UNIT LIQUID DISTRIBUTOR (Machine translation)

Abstract: Source: FR1220395A [FR] (Claim 1) 1) **ATTENTION** debut du champ CLMS peut contenir fin de DESC **. mises en rotation par intermittence pour agiter le contenu des reservoirs. L'appareil est de preference enferme et comprend des panneaux lateraux 191 et 192, un panneau superieur 193, un panneau anterieur 194 et un panneau posterieur 190. Afin de permettre de determiner facilement lequel des cylindres de dosage est situe au poste de distribution, une ouverture d'observation 199 est formee dans le panneau anterieur 194 et la plaque de support 21 au voisinage des cylindres de dosage 12 et chacun des cylindres est marque d'un signe approprie (voir fig.

Machine translation: (Claim 1) 1) ** WARNING ** start of CLMS field may contain end of DESC **. intermittently rotated to stir the contents of the tanks. The device is preferably enclosed and includes side panels 191 and 192, a top panel 193, a front panel 194 and a posterior panel 190. To enable to determine easily which of the metering cylinders is located at the dispensing station, a viewing aperture 199 is formed in the anterior panel 194 and the support plate 21 in the vicinity of the metering cylinders 12 and each cylinder is brand an appropriate sign (see Fig.

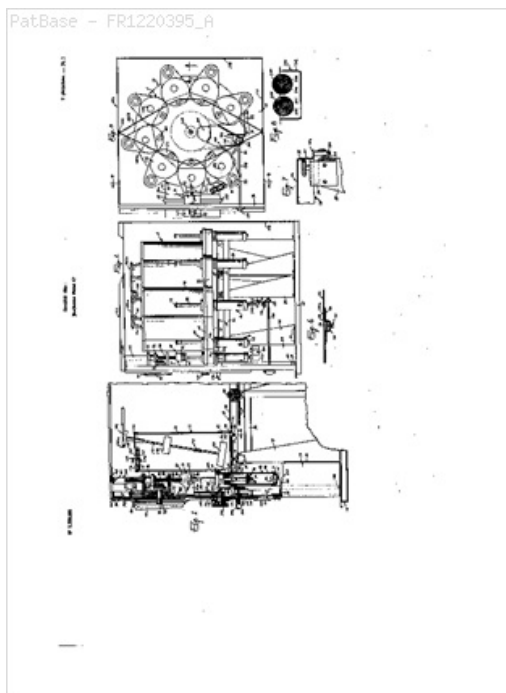
Classifications:

International (IPC 8-9): B65B39/00 (Advanced/Invention); B65B39/00 (Core/Invention)

International (IPC 1-7): B65B39/00 B67D5/02

CPC: B65B39/004

European: B65B39/00A3



Family:

Publication number	Publication date	Application number	Application date
FR1220395 A	19600524	FR19590787610	19590224

Priority:

19580224 FR19590787610 19590224

Probable Assignee: ROCKCOTE PAINT CO

Assignee(s): (std): ROCKCOTE PAINT CO

66) Family number: 32021557 (US2005136776A)

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Title: SOFT AND BULKY COMPOSITE FABRICS

Abstract: A composite fabric is provided that contains staple fibers hydraulically entangled with a nonwoven web formed

from continuous filaments. A portion of the staple fibers is entangled with the web, while another portion protrudes through the web. The resulting surface topography has one surface with a preponderance of the smooth, staple fibers, and another surface with a preponderance of the continuous filaments from the nonwoven web, but also including some of the protruded smooth, staple fibers. Thus, each surface contains smooth staple fibers and is soft.

Classifications:

International (IPC 8-9): A47L13/16 A47L13/17 D04H1/00 D04H1/44 D04H1/46 D04H13/00 D04H3/00 D04H3/16 D04H5/00 D04H5/02 (Advanced/Invention); D04H1/00 D04H13/00 (Advanced/Non-invention); D04H (Subclass/Invention)

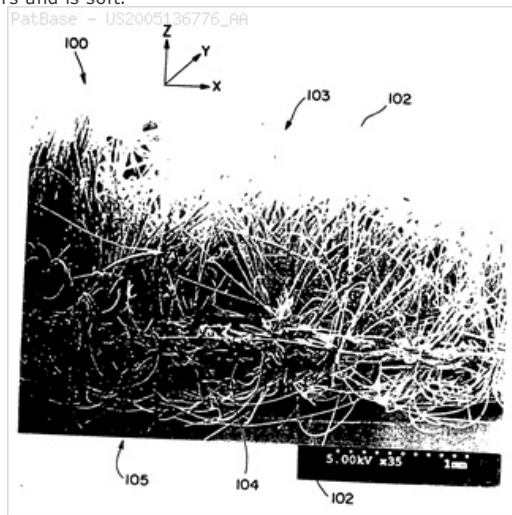
International (IPC 1-7): D04H1/00 D04H13/00 D04H3/00 D04H5/00

CPC: Y10T442/619 Y10T442/681 Y10T442/689 Y10T442/697

D04H3/14 D04H1/498

European: D04H13/00B3B

US: 28/104 442/344 442/344S 442/401 442/401S 442/408 442/408P 442/415 442/415S



Family:

Publication number	Publication date	Application number	Application date
AU2004313826 AA	20050728	AU20040313826	20040610
AU2004313826 BB	20100513	AU20040313826	20040610
BRPI0418001 A	20070417	BR2004PI18001	20040610
BRPI0418001 B1	20161004	BR2004PI18001	20040610
CA2547730 AA	20060530	CA20042547730	20040610
CA2547730 C	20120131	CA20042547730	20040610
CN1898430 A	20070117	CN200480038556	20040610
CN1898430 B	20121205	CN200480038556	20040610
CR8415 A	20070911	CR20060008415	20060522
DE602004020805 D1	20090604	DE200460020805T	20040610
EP1706527 A1	20061004	EP20040755187	20040610
EP1706527 B1	20090422	EP20040755187	20040610
IL175548 A0	20060905	IL20060175548	20060510
IL175548 A1	20100531	IL20040175548	20040610
JP2007516363 T2	20070621	JP20060546945T	20040610
KR101084890 B1	20111117	KR20067012438	20040610
KR20060115901 A	20061110	KR20067012438	20040610
MXPA06007186 A1	20060823	MX2006PA07186	20040610
RU2006122605 A	20080127	RU20060122605	20040610
RU2366768 C2	20090910	RU20060122605	20040610
US2005136776 AA	20050623	US20030744606	20031223
US7194788 BB	20070327	US20030744606	20031223
WO05068702 A1	20050728	WO2004US18873	20040610
ZA200604055 A	20070926	ZA20060004055	20040610

Priority:

US20030744606 20031223 WO2004US18873 20040610

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): CLARK JAMES W ; DETAMORE JAMES J ; JENKINS SHAWN ; KIMBERLY CLARK CO ; SKOOG HENRY

Assignee(s): KIMBERLY CLARK WORLDWIDE INC ; KIMBERLY CLARK CORP ; KIMBERLEY CLARK WORLDWIDE INC ; KIMBERLI KLARK VORLVAJD INK

Inventor(s): (std): CRAIG F THOMASCHEFSKY ; HENRY SKOOG ; JAMES J DETAMORE ; JAMES W CLARK ; JENKINS SHAWN ; LARRY M BROWN ; SHAWN CLARK JAMES W SKOOG HENR ; SHAWN JENKINS ; SKUG GENRI ; KLARK DZHEJMS V ; DZHENKINS SHON ; DITAMUR DZHEJMS DZH ; SKOOG HENRY ; JENKINS SHAWN ERIC ; JENKINS SHAWN E ; DETAMORE JAMES J ; CLARK JAMES WILLIAM ; CLARK JAMES W

Inventor(s): DETAMORE JAMES ; CLARK JAMES ; SHAWN E JENKINS ; CLARK JAMES W SKOOG HENRY DETAMORE JAMES J JENKINS

Agent(s): FREEHILLS PATENT ATTORNEYS; FREEHILLS PATENT ATTORNEY S; FREEHILLS PATENT AND TRADE MARK ATTORNEYS; HERBERT SMITH FREEHILLS; SPRUSON AND FERGUSON; BORDEN LADNER GERVAIS LLP; DAVIES CHRISTOPHER ROBERT; REINHOLD COHN AND PARTNERS; DORITY AND MANNING PA

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

67) Family number: 32021558 (US2005136777A)

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Title: ABRADED NONWOVEN COMPOSITE FABRICS

Abstract: A nonwoven composite fabric is provided that contains one or more abraded (e.g., sanded) surfaces. In addition to improving the softness and handfeel of the nonwoven composite fabric, it has been unexpectedly discovered that abrading such a fabric may also impart excellent liquid handling properties (e.g., absorbent capacity, absorbent rate, wicking rate,

etc.), as well as improved bulk and capillary tension.

Classifications:

International (IPC 8-9): A47L13/16 D04H1/00 D04H1/46 D04H13/00 D04H3/00 D04H3/10 D04H3/16 D04H5/00 D04H5/02 D06C11/00 D06C23/02 (Advanced/Invention);

D04H1/46 D04H3/00 D04H3/10 D04H5/00 (Advanced/Non-invention)

International (IPC 1-7): D04H1/00 D04H1/46 D04H3/00 D04H3/10 D04H5/00 D04H5/02

CPC: Y10T442/681 Y10T442/689 Y10T442/695 Y10T442/697 Y10T442/698 D04H1/498 D04H1/732 D04H3/14 D06C11/00 D04H1/492

European: D04H13/00B3B D06C11/00

US: 26/28 28/104 281/40 442/401 442/401S 442/408 442/408P 442/413 442/413S 442/415 442/415S 442/416 442/416S

PatBase - US2005136777_AA



Family:

Publication number	Publication date	Application number	Application date
AU2004313827 AA	20050728	AU20040313827	20040618
AU2004313827 BB	20091022	AU20040313827	20040618
BRPI0418014 A	20070417	BR2004PI18014	20040618
BRPI0418014 B1	20150120	BR2004PI18014	20040618
CA2547705 AA	20060530	CA20042547705	20040618
CN1898429 A	20070117	CN200480038406	20040618
CN1898429 B	20101208	CN200480038406	20040618
CR8413 A	20061107	CR20060008413	20060522
DE602004022710 D1	20091001	DE200460022710T	20040618
EP1699963 A1	20060913	EP20040776877	20040618
EP1699963 B1	20090819	EP20040776877	20040618
EP1699963 B2	20121114	EP20040776877	20040618
IL175547 A0	20060905	IL20040175547	20040618
JP2007516364 T2	20070621	JP20060546947T	20040618
KR101084884 B1	20111117	KR20067012454	20040618
KR20060115902 A	20061110	KR20067012454	20040618
MXPA06007185 A1	20060823	MX2006PA07185	20040618
RU2006122362 A	20080127	RU20060122362	20040618
RU2357031 C2	20090527	RU20060122362	20040618
US2005136777 AA	20050623	US20030744608	20031223
US7194789 BB	20070327	US20030744608	20031223
WO05068701 A1	20050728	WO2004US19857	20040618
ZA200604059 A	20080130	ZA20060004059	20040618

Priority:

US20030744608 20031223 WO2004US19857 20040618

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): BROWN LARRY M ; KIMBERLY CLARK CO ; THOMASCHEFSKY CRAIG F

Assignee(s): KIMBERLY CLARK WORLDWIDE INC ; KIMBERLY CLARK CORP ; KIMBERLI KLARK VORLDDVAJD INK

Inventor(s): (std): BROWN LARRY M ; CRAIG F THOMASCHEFSKY ; BRAUN LEHRRRI M ; LARRY M BROWN ; THOMASCHEFSKY CRAIG F ; THOMASCHEFSKY CRAIG F BROWN LA ; TOMASHEVSKI KREJG F ; THOMASCHEFSKY CRAIG FARRELL

Inventor(s): THOMASCHEFSKY CRAIG ; BROWN LARRY ; CRAIG FARRELL THOMASCHEFSKY

Agent(s): FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS; HERBERT SMITH FREEHILLS; FREEHILLS PATENT ATTORNEY S; SPRUSON AND FERGUSON; BORDEN LADNER GERVAIS LLP; DAVIES CHRISTOPHER ROBERT; DORITY AND MANNING PA

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

68) Family number: 32021559 (US2005136778A)

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Title: ULTRASONICALLY LAMINATED MULTI-PLY FABRICS

Abstract: A multi-ply fabric is provided that includes an inner ply positioned between two outer plies that contain both thermoplastic fibers and absorbent staple fibers. The plies are ultrasonically bonded together. The material used to form the inner ply may be selectively controlled to optimize certain properties of the fabric for a particular application, such as strength, bulk, absorption capacity, absorption rate, handfeel, etc.

Classifications:

International (IPC 8-9): A47L13/16 B23B5/26 B32B23/02 B32B27/02 B32B27/32 B32B37/00 B32B37/14 B32B37/20 B32B38/06 B32B5/26 B32B7/04 D04H1/42 D04H1/48 D04H11/08 D04H13/00 D04H3/16 D04H5/06 D06M17/00 (Advanced/Invention);

B32B38/06 B32B5/26 (Advanced/Non-invention);

A47L13/16 B32B37/00 B32B37/14 B32B5/22 B32B7/04 D04H1/42 D04H1/48 D04H11/00 D04H13/00 D04H3/16 (Core/Invention);

B32B38/06 (Core/Non-invention);

B32B D04H (Subclass/Invention)

International (IPC 1-7): B32B1/10 B32B27/14 B32B5/26 B32B7/04 D04H13/00

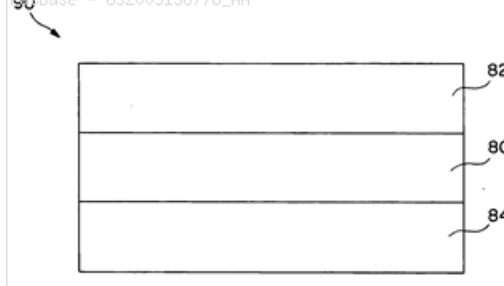
CPC: Y10T428/24826 B32B2459/00 Y10T442/659 Y10T442/689 D04H1/555 D04H1/559 B32B2432/00 B32B5/26 B32B7/04

B32B37/00 B32B37/206 B32B38/06 B32B2307/28 B32B2310/028

European: B32B37/00 B32B37/20A4 B32B5/26 B32B7/04 D04H13/00B2 D04H13/00B3 L32B307/28 L32B310/02F L32B38/06 L32B459/00

US: 156/290 156/308.4 156/324 156/73.1 428/198 428/198S 442/381 442/381S 442/408 442/408P

PatBase - US2005136778_AA



Family:

Publication number	Publication date	Application number	Application date
AU2004314111 AA	20050728	AU20040314111	20040610
AU2004314111 BB	20100429	AU20040314111	20040610
BRPI0417960 A	20070327	BR2004PI17960	20040610
BRPI0417960 B1	20150519	BR2004PI17960	20040610
CA2550571 AA	20060531	CA20042550571	20040610
CA2550571 C	20121106	CA20042550571	20040610
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CN102787504 B	20151216	CN201210213849	20040610
CN1898080 A	20070117	CN200480038404	20040610
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IL175546 A0	20060905	IL20040175546	20040610
JP2007516875 T2	20070628	JP20060546946T	20040610
JP5068538 B2	20121107	JP20060546946T	20040610
KR101200203 B1	20121109	KR20067012444	20040610
KR20060111601 A	20061027	KR20067012444	20040610
RU2006122606 A	20080127	RU20060122606	20040610
RU2353523 C2	20090427	RU20060122606	20040610
US2005136778 AA	20050623	US20030745339	20031223
US7645353 BB	20100112	US20030745339	20031223
WO05068178 A1	20050728	WO2004US18875	20040610
ZA200604057 A	20071031	ZA20060004057	20040610

Priority:

US20030745339 20031223 CN200480038404 20040610 EP20040755189 20040610
WO2004US18875 20040610

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): KIMBERLY CLARK CO ; BROWN LARRY M ; THOMASCHEFSKY CRAIG F

Assignee(s): KIMBERLI KLARK VORLDAVDJ INK ; KIMBERLY CLARK CORP ; KIMBERLY CLARK WORLDWIDE INC ; KIMBERLY CLARK WORLDWIDE INC NEENAH

Inventor(s): (std): BROWN LARRY ; CRAIG F THOMASCHEFSKY ; LARRY M BROWN ; THOMASCHEFSKY CRAIG ; TOMASHEVSKI KREJG F ; BRAUN LEHRR I M ; THOMASCHEFSKY CRAIG FARRELL BR ; THOMASCHEFSKY CRAIG FARRELL ; THOMASCHEFSKY CRAIG F ; BROWN LARRY M

Inventor(s): CRAIG FARRELL THOMASCHEFSKY ; BROWN LARRY M ROSWELL ; THOMASCHEFSKY CRAIG F MARIETTA ; THOMASCHEFSKY CRAIG FARRELL BROWN LARRY M

Agent(s): FREEHILLS PATENT ATTORNEYS; HERBERT SMITH FREEHILLS; FREEHILLS PATENT ATTORNEY S; SPRUSON AND FERGUSON; FREEHILLS PATENT AND TRADE MARK ATTORNEYS; BORDEN LADNER GERVAIS LLP; ZIMMERMANN AND PARTNER PATENTANWAELTE MBB; MABEY KATHERINE FRANCES; DURAN LUIS ALFONSO; DORITY AND MANNING PA

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

69) Family number: 28225559 (US2002115370A)

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Title: HYDROENTANGLED NONWOVEN COMPOSITE STRUCTURES CONTAINING RECYCLED SYNTHETIC FIBROUS MATERIALS

Abstract: A hydraulically entangled nonwoven composite structure that includes a matrix of substantially continuous filaments; and recycled synthetic fibers and fiber-like materials having at least one thread element composed of synthetic material with at least one irregular distortion generated by hydraulic fracture of the thread element to separate it from a bonded fibrous material while the bonded fibrous material is suspended in a liquid. This nonwoven composite structure may be used as a wiper or an absorbent material. A method of forming the nonwoven composite structure includes the steps of: (a) providing a layer of recycled synthetic fibers and fiber-like materials having at least one thread element composed of synthetic material containing at least one irregular distortion generated by hydraulic fracture of the thread element to separate it from a bonded fibrous material while the bonded fibrous material is suspended in a liquid; (b) superposing the layer of recycled fibers and fiber-like materials over a layer of substantially continuous filaments; (c) hydraulically entangling the layers to form a nonwoven web; and (d) drying the web.

Classifications:

International (ipc 8-9): A47K10/32 A47L13/16 C08L101/16 D04H1/00 D04H1/40 D04H1/42 D04H1/46 D04H13/00 D04H3/10 D04H5/02 D06M11/77 D06M23/08 (Advanced/Invention); D04H1/46 (Advanced/Non-invention)

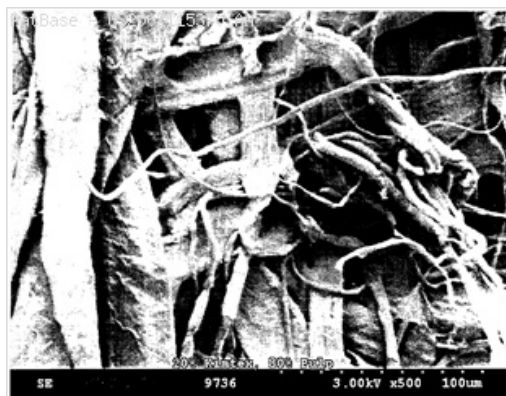
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CPC: Y10T442/607 Y10T442/666 Y10T442/689 D04H5/02

Y02P20/582 D04H5/03 D04H1/492

European: D04H1/46B D04H5/02

US: 442/333 442/333P 442/387 442/387S 442/408 442/408S



Family:

Publication number	Publication date	Application number	Application date
AR032772 AA	20031126	AR2001P105256	20011109
AU2002230627 AA	20020521	AU20020230627	20011107
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EP1358375 A2	20031105	EP20010990862	20011107
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WO0238027 A2	20020516	WO2001US46761	20011107
WO0238027 A3	20021107	WO2001US46761	20011107
ZA200302953 A	20040415	ZA20030002953	20030415

Priority:

US20000247091 20001110 US20000247091P 20001110 US20010012766 20011105
WO2001US46761 20011107

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): KIMBERLY CLARK CO ; SKERRETT JOHN RICHARD ; SKOOG HENRY

Assignee(s): VANEGAS BERNARDO ; KIMBERLY CLARK CORP ; KIMBERLY CLARK WORLDWIDE INC ; PALACIO GUSTAVO ; RADWANSKI FRED ROBERT ; RAMIREZ PABLO ; GARCIA MARIA CLARA ; JONES PRISCILLA M ; KIMBERLY CLARK WORLDWIDE INC

Inventor(s): (std): GARCIA M C ; GARCIA MARIA CLARA ; GUSTAVO PALACIO ; HENRY SKOOG ; JOHN RICHARD SKERRETT ; JONES P M ; JONES PRISCILLA M ; KIMBERLY CLARK WORLDWIDE INC ; BERNARDO VANEGAS ; FRED ROBERT RADWANSKI ; MARIA CLARA GARCIA ; PABLO RAMIREZ ; PALACIO G ; PALACIO GUSTAVO ; PRISCILLA M JONES ; RADWANSKI FRED ROBERT ; RAMIREZ PABLO ; SKERRETT JOHN RICHARD ; SKOOG HENRY ; VANEGAS BERNARDO

Inventor(s): PM JONES ; MC GARCIA ; P M JONES ; G PALACIO ; M C GARCIA

Agent(s): FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS; HERBERT SMITH FREEHILLS; FREEHILLS PATENT ATTORNEY S; FPA PATENT ATTORNEYS PTY LTD; BORDEN LADNER GERVAIS LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

70) Family number: 25284570 (GB278144A)

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Title: IMPROVEMENTS IN OR RELATING TO MACHINES FOR FOLDING THE EDGES OF LEATHER OR OTHER FLEXIBLE MATERIAL

Abstract: 278,144. Gimson Shoe Machinery Co., Ltd., and Choice, F. C. Aug. 17, 1926. Folding edges of sheet material.-A machine for folding the edges of leather or other flexible material comprises means for initially turning up the edge of the material, means to determine the crease line of the fold, and a tool which wipes the turned-up edge down and then engages it with gradually increasing pressure against the crease-determining device. The machine is adapted to operate on curves of small radius and on "slashed" work or parts formed with apertures. The material is engaged by a stationary folder block 1 to turn up the edge of the material over the lip 3 of an adjustable member 2 pivotally mounted in the arm 69 of the machine. The part 2 may be secured to the folder block 1. The material is held between the lip 3 and a camoperated spring-controlled plunger 4 while the fold is being wiped or pressed. The tool 6 moving in an arcuate path through an aperture in the work plate, wipes the turned-up edge of the material over and against the lip 3 and then presses it with gradually increasing pressure against an anvil 7, the maximum pressure being determined by a spring device, in a reciprocating; rod adapted to actuate the tool. When the tool is exerting the greatest pressure on the folded portion of the material, the plunger 4 is lowered against the action of its spring and the tool '6 and anvil 7 are rocked about a common axis to feed the material. Means is provided for varying the feed. The plunger 4 is then raised, to grip the work against the lip 3, the tool 6 releases the work, and the parts return to their initial positions. A projection or blade 8 formed on the tool 6 allows surplus material to be bunched or pleated on each side thereof when operating on convex curved parts. A treadle-controlled knife 9 for acting on concave parts is adapted to act as one blade of a pair of shears, the other blade being formed by the folder block 1. When work is being inserted in the machine, the crease-determining device 2 is moved out of the way by a hand lever 81 into the position shown in Fig. 4. The machine is driven through friction-clutch mechanism, a brake being applied when the drive is unclutched.

Classifications:

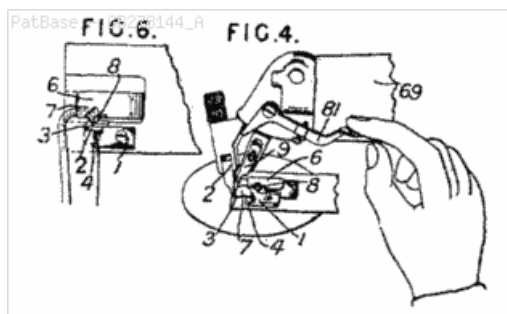
International (IPC 8-9): A43D8/40 (Advanced/Invention);

A43D8/00 (Core/Invention)

International (IPC 1-7): A43D7/22 C14B13/00

CPC: A43D8/40

European: A43D8/40

**Family:**

Publication number	Publication date	Application number	Application date
GB278144 A	19271006	GB19260020272	19260817

Priority:

GB19260020272 19260817

Probable Assignee: GIMSON SHOE MACHINERY CO**Assignee(s):** (std): FRANK COLEMAN CHOICE ; GIMSON SHOE MACHINERY CO ; GIMSON SHOE MACHINERY COMPANY**Assignee(s):** THE GIMSON SHOE MACHINERY COMPANY LIMITED ; GIMSON SHOE MACHINERY CO LTD**71) Family number: 43630580 (US2012177888A)**

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Title: HIGH CELLULOSE CONTENT, LAMINIFEROUS NONWOVEN FABRIC

Abstract: The present invention provides a laminiferous nonwoven fabric with a high woodpulp content suitable for use in wipes, absorbent articles and other applications, and a method of making the same. The laminiferous nonwoven comprises 3 layers bonded together, where the outer layers are lightweight meltspun webs and the middle layer comprises mainly woodpulp fibres. Each of the first (3), second (2) and third (4) nonwoven layer are preferably first formed separately and individually to be self-supported webs, whereafter the three self-supported webs are brought together essentially immediately before bonding them together. When used as a substrate for wet wipes, the inventive fabric exhibits a combination of several useful properties; good wet and dry softness and bulk, good wet abrasion resistance and low wet linting propensity, and where the majority raw material is woodpulp.

Classifications:**International (IPC 8-9):** B23B37/00 B32B23/02 B32B3/30 B32B37/00 B32B5/02 B32B5/22 B32B5/26 D04H13/00

D04H3/04 (Advanced/Invention);

B32B37/00 B32B37/12 B32B38/06 (Advanced/Non-invention);

B32B (Subclass/Invention)

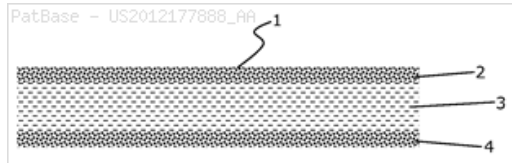
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B32B2305/20 B32B2317/18 B32B5/022 B32B5/06 B32B5/08

B32B5/145 B32B5/22 B32B7/12 B32B2250/20 B32B2262/02 B32B2262/0253 B32B2262/0276 B32B2262/062 B32B2262/12

B32B2262/14 B32B2307/54 B32B2307/554 B32B2307/718 B32B2307/726 B32B2432/00 B32B2555/00 Y10T428/24529

Y10T428/24942 D04H1/425 D04H1/559 D04H1/56 D04H1/732

European: B32B23/02 B32B5/26 L32B305/20 L32B317/18 L32B37/00D2 L32B37/12 L32B38/06**US:** 1/1 28/100 28/100S 428/162 428/162P 428/212 428/212S**Family:**

Publication number	Publication date	Application number	Application date
BR112012001275 A2	20160210	BR20121101275	20100720
DE602010008276 D1	20130829	DE201060008276T	20100720
EP2456585 A2	20120530	EP20100749671	20100720
EP2456585 B1	20130703	EP20100749671	20100720
EP2456585 B2	20171220	EP20100749671	20100720
ES2429498 T3	20131115	ES20100749671T	20100720
ES2429498 T5	20180413	ES20100749671T	20100720
FI20095800 A0	20090720	FI20090005800	20090720
RU2012105927 A	20130827	RU20120105927	20100720
RU2534534 C2	20141127	RU20120105927	20100720
US2012177888 AA	20120712	US20100386139	20100720
US9296176 BB	20160329	US20100386139	20100720
WO11009997 A2	20110127	WO2010FI50603	20100720
WO11009997 A3	20110526	WO2010FI50603	20100720

Priority:

FI20090005800 20090720

EP20100749671 20100720

WO2010FI50603 20100720

Probable Assignee: SUOMINEN CORP**Assignee(s):** (std): AHLSTRON CORP ; ESCAFERE PASCALE ; ESCAFFRE PASCALE ; MEIKLE GORDON ; NORTMAN BRIAN ; SUOMINEN CORP ; AHLSTROEM OY**Assignee(s):** AHLSTROM CORP ; SUOMINEN KORPOREJSHN**Inventor(s):** (std): NORTMAN BRAJAN ; EHSKAFFR PASKAL ; MEJKL GORDON ; ESCAFERE PASCALE ; MEIKLE GORDON ; NORTMAN BRIAN ; ESCAFFRE PASCALE**Inventor(s):** GORDON MEIKLE ; BRIAN NORTMAN ; PASCALE ESCAFFRE**Agent(s):** LONG GIORGIO; SEPPO LAINE OY; LINAGE RAFAEL; PEARL COHEN ZEDEK LATZER BARATZ LLP; COOR SERVICE MANAGEMENT KARHULA OY

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

72) Family number: 22853583 (US3307969A)

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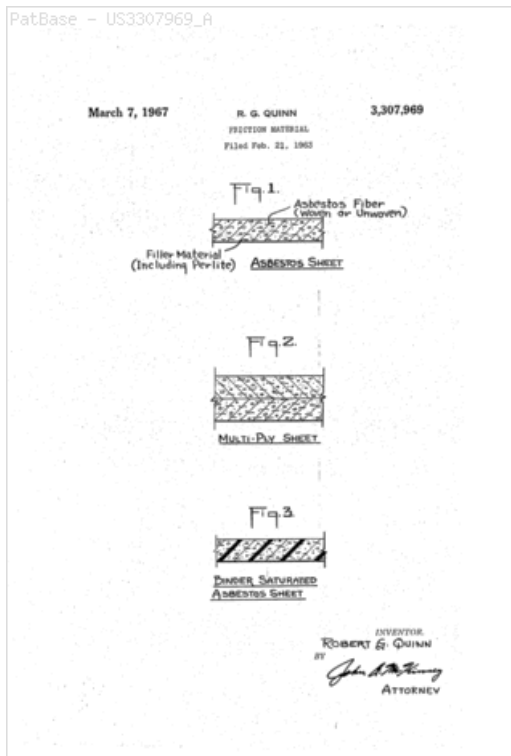
Title: FRICTION MATERIAL

Abstract: (Claim 1) 1. Friction material composed of a hard, dense comprising comminuted expanded perlite (sized substantial- position comprising asbestos fiber and organic binder, having distributed therethrough at least approximately 5% by weight thereof of comminuted expanded perlite sized substantially between about 1-50 microns and of a bulk density of about 4-30 lbs./cu. ft.

Classifications:**International (IPC 8-9):** C04B26/10 F16D69/02 (Advanced/Invention);

C04B26/00 F16D69/02 (Core/Invention)

International (IPC 1-7): C08L61/14 F16D69/00 F16D69/02**CPC:** C04B26/10 F16D69/022**European:** C04B26/10 F16D69/02A2**US:** 106/122 106/36 523/159

**Family:**

Publication number	Publication date	Application number	Application date
US3307969 A	19670307	US19630260290	19630221

Priority:

US19630260290 19630221

Probable Assignee: JOHNS MANVILLE**Assignee(s):** (std): JOHNS MANVILLE

Assignee(s): JOHNS MANVILLE CORP ; HOUSEHOLD COMMERCIAL FINANCIAL SERVICES INC ; HOUSEHOLD COMMERCIAL FINANCIAL SERVICES INC A CORP OF DE ; J M CLIPPER A CORP OF DE CORP ; J M CLIPPER CORP

Inventor(s): (std): QUINN ROBERT G**73) Family number: 30508585 (US5720832A)**

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Title: METHOD OF MAKING A MELTBLOWN NONWOVEN WEB CONTAINING ABSORBENT PARTICLES

Abstract: A method of making a non-woven web of melt blown polymeric fibers wherein the melt blown fibers have particles introduced into the stream of microfibers after the microfibers have been extruded. If the particles are of super absorbent material they are distributed substantially individually and spaced throughout the web and provide effective results when used for example in a sanitary napkin, diaper or incontinence pad. If the particles are for example, clay, calcium carbonate, kaolin chalk or the like, then a wiper product made from the web has improved wiping properties.

Classifications:

International (IPC 8-9): A47L13/16 A61F13/15 A61F13/472
A61F13/49 A61F13/53 A61L15/00 A61L15/18 A61L15/28 A61L15/60
D04H1/00 D04H1/40 D04H1/407 D04H1/413 D04H1/425 D04H1/4291
D04H1/54 D04H1/541 D04H1/56 D04H1/724 D04H3/14 D04H3/16
D04H5/02 D04H5/06 D04H5/08 (Advanced/Invention);
A61L15/00 D04H1/40 (Advanced/Non-invention);
A47L13/16 A61F13/15 A61L15/00 A61L15/16 D04H1/40
D04H1/56 (Core/Invention)

International (IPC 1-7): A41B13/00 A41B13/02 A47L13/16
A61F13/18 A61F5/44 A61F5/48 A61L15/00 A61L15/60 D04H1/00
D04H1/40 D04H1/44 D04H1/54 D04H1/56 D04H1/72 D04H3/14
D21B1/04

CPC: Y10T442/68 Y10T442/699 D04H1/732 D04H1/407 A47L13/16
A61F13/15658 A61F13/53 A61F2013/15048 A61F2013/15821
A61F2013/530131 A61F2013/530481 A61F2013/530496 A61L15/18
A61L15/28 A61L15/60 D04H1/425 D04H1/4291 D04H1/54
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D04H5/08

European: A47L13/16 A61F13/15M3G A61F13/53 A61L15/18
A61L15/28 A61L15/60 D04H1/407 D04H1/425 D04H1/4291
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D04H5/06 D04H5/08 K61F13/15A11 K61F13/15M11 K61F13/53M
K61F13/53Q K61F13/53Q1A

US: 156/62.4 442/400 442/417

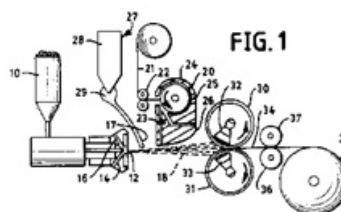


FIG. 2

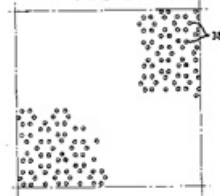


FIG. 3

**Family:**

Publication number	Publication date	Application number	Application date
AT36358 E	19880815	AT19820306269T	19821124
AT49888 E	19900215	AT19820101824T	19821124
AU198310163 A1	19830617	AU19830010163	19821124
AU552214 B2	19860522	AU19830010163	19821124
BR8207988 A	19831004	BR19820007988	19821124
CA1339486 A1	19971007	CA19820416252	19821124
DE3278881 D1	19880915	DE19823278881	19821124
DE3280094 D1	19900308	DE19823280094	19821124
EP0080382 A2	19830601	EP19820306269	19821124
EP0080382 A3	19830720	EP19820306269	19821124
EP0080382 B1	19880810	EP19820306269	19821124
EP0156160 A2	19851002	EP19850101824	19821124
EP0156160 A3	19861008	EP19850101824	19821124
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GB2113731 A1	19830810	GB19820033488	19821124
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GB2151272 A1	19850717	GB19840031824	19841217
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GB8431824 A0	19850130	GB19840031824	19841217
IE53966 B	19890426	IE19820002788	19821123
IE53967 B	19890426	IE19880001535	19821123
IE53968 B	19890426	IE19880001536	19821123
IE822788 L	19830524	IE19820002788	19821123
IE881535 L	19830524	IE19880001535	19821123
IE881536 L	19830524	IE19880001536	19821123
JP58502005 T2	19831124	JP19830500034	19830722
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JP58502005 T2	19831124	JP19830500034T	19821124
MX158206 A	19890116	MX19820195316	19821124
PH24253 A	19900504	PH19820028190	19821124
US5720832 A	19980224	US19950471088	19950606
WO8301965 A1	19830609	WO1982GB00334	19821124
ZA8208635 A	19831026	ZA19820008635	19821123

Priority:

GB19810035331	19811124	IE19820002788	19821123	CA19820416252	19821124
EP19820306269	19821124	EP19820306269P	19821124	GB19820033488	19821124
EP19850101824	19821124	WO1982GB00334	19821124	US19830530600	19830722
GB19840031824	19841217	US19850787708	19851016	US19930071048	19930601
US19950471088	19950606				

Probable Assignee: KIMBERLY CLARK CORP**Assignee(s):** (std): KIMBERLEY CLARK LTD ; KIMBERLY CLARK LTD ; KIMBERLY CLARKE LTD**Assignee(s):** MINTO MANSOOR AHMAD ; OWEN GEOFFREY ROBERT ; STOREY DENNIS GRAHAM ; KIMBERLY CLARK LTD MAIDSTONE KENT GB ; KIMBERLY CLARK WORLDWIDE INC ; KIMBERLY CLARK CORP ; KIMBERLY CLARK LIMITED ; KIMBERLEY CLARK LIMITED**Inventor(s):** (std): DR GEOFFREY ROBERT OWEN ; DR MANSOOR AHMAD MINTO ; GEOFFREY ROBERT OWE ; MANSOOR AHMAD MINTO ; MINTO AHMAD MANSOOR ; MINTO AM STOREY DG OWEN GR ; OWEN GEOFFREY ROBERT DR ; OWEN GEOFFREY ROBERT ; OWEN DR GEOFFREY ROBERT ; OWE GEOFFREY ROBERT ; MINTO MANSOOR AHMAD DR ; MINTO MANSOOR AHMAD ; MINTO DR MANSOOR AHMAD ; MINTO A M STOREY D G OWEN G R ; MANSOOR MINTO AHMAD ; GRAHAM STOREY DENNIS ; GEOFFREY ROBERT

Inventor(s): OWEN ; DENNIS GRAHAM STOREY ; AHMAD MANSOOR MINTO ; STOREY DENNIS GRAHAM ; ROBERT OWEN GEOFFREY
OWEN GR ; OWEN DR ; MINTO DR ; MINTO AM ; STOREY DG ; STOREY DENNIS GRAHAM BEARSTED KENT GB

Agent(s): BORDEN LADNER GERVAIS LLP

Designated states: AT AU BE BR CH DE FR GB IT JP KP LI LU NL US

74) Family number: 30092614 (US2002042352A)

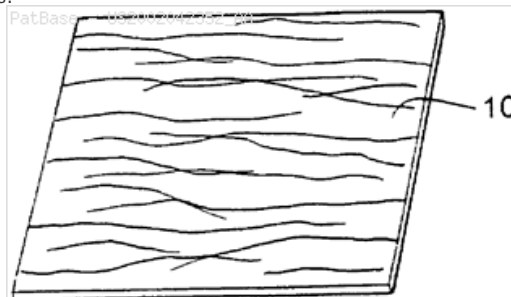
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Title: SORBENT MATERIAL

Abstract: A sorbent material is provided comprising a porous substrate, such as a nonwoven web, having a wetting chemistry distributed substantially throughout the substrate. The wetting chemistry can comprise (a) an aliphatic alcohol ethoxylate; (b) one or more of an alkyl sulfosuccinate, an alkyl sulfate and a sulfated fatty acid ester and, optionally, (c) a fatty acid ester ethoxylate. Various formulations are provided having low metal ion concentrations, anti-static properties and/or good absorption characteristics for a broad spectrum of liquids.

Classifications:

International (IPC 8-9): A47L13/16 A61L15/00 B01J20/22 B32B27/04 C11D1/00 C11D10/00 C11D17/00 C11D17/04 D06M13/165 D06M13/17 D06M13/224 D06M13/256 D06M13/262 D06M15/03 (Advanced/Invention); C11D17/04 D06M13/00 D06M15/01 (Core/Invention)
International (IPC 1-7): A61F13/15 A61L15/00 A61L15/50 B01J20/22 B32B27/04 B32B5/02 B32B5/26 C11D1/00 C11D10/00 C11D17/00 C11D17/04 C11D17/08 C11D17/09 D04H1/56 D06M13/165 D06M13/256 D06M13/262
CPC: Y10T442/2008 Y10T442/2434 Y10T442/2467 Y10T442/2492 Y10T442/2418 Y10T442/2484 Y10T442/66 Y10T442/68 Y10T442/681 D06M13/224 C11D17/049 D06M13/165 D06M13/17 D06M13/256 D06M13/262 D06M15/03
European: C11D17/04F D06M13/165 D06M13/17 D06M13/224 D06M13/256 D06M13/262 D06M15/03
US: 442/110 442/112 442/116 442/118 442/119 442/382 442/400 442/401 442/60 510/175 510/421 510/421S 510/438 510/438S 510/536



Family:

Publication number	Publication date	Application number	Application date
AR018401 AA	20011114	AR1999P102512	19990527
AU199942229 A1	19991220	AU19990042229	19990528
AU752361 B2	20020919	AU19990042229	19990528
BRPI9910789 A	20011030	BR1999PI10789	19990528
CA2332721 AA	20001115	CA19992332721	19990528
CA2332721 C	20080325	CA19992332721	19990528
CL1999001084 A1	19991110	CL19990001084	19990528
CO5060519 A1	20010730	CO19990033313	19990528
CR6030 A	19991118	CR19990006030	19990520
DE69930626 D1	20060518	DE19996030626	19990528
DE69930626 D1	20060518	DE19996030626T	19990528
DE69930626 T2	20070118	DE19996030626T	19990528
DE69930626 T3	20140313	DE19996030626T	19990528
EP1084226 A1	20010321	EP19990926064	19990528
EP1084226 B1	20060329	EP19990926064	19990528
EP1084226 B2	20130724	EP19990926064	19990528
ES2257052 T3	20060716	ES19990926064T	19990528
JP2002517560 T2	20020618	JP20000552243T	19990528
JP4381605 B2	20091209	JP20000552243T	19990528
PE06272000 A1	20000726	PE19990000434	19990525
PE62700 A1	20000726	PE19990000434	19990525
TH46653 A	20010815	TH19991001581	19990510
US2002042352 AA	20020411	US20010012767	20011105
US6107268 A	20000822	US19990293294	19990416
US6417154 BA	20020709	US20000618144	20000717
US6562777 BB	20030513	US20010012767	20011105
WO9963046 A1	19991209	WO1999US12015	19990528

Priority:

US19980087382P 19980530 US19980087383P 19980530 US19990293294 19990416
EP19990926064 19990528 WO1999US12015 19990528 US20000618144 20000717
US20010012767 20011105

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): KIMBERLY CLARK CO ; THOMASCHEFSKY CRAIG FARRELL ; YAHIAOUI ALI

Assignee(s): CHIU TAIWOO ; KIMBERLY CLARK CORP ; KIMBERLY CLARK WORLDWIDE INC

Inventor(s): (std): CHIU TAIWOO ; CRAIG FARRELL THOMASCHEFSKY ; TAIWOO CHIU ; THOMASCHEFSKY FARRELL CRAIG ; THOMASCHEFSKY CRAIG ; THOMASCHEFSKY CRAIG FARRELL ; THOMASCHEFSKY FARRELL ; YAHIAOUI ALI ; ALI YAHIAOUI ; FARRELL CRAIG

Inventor(s): CRAIG THOMASCHEFSKY FARRELL ; CHIU ; YAHIAOUI ALI THOMASCHEFSKY CRAIG FARRELL CHIU

Agent(s): FREEHILLS PATENT AND TRADE MARK ATTORNEYS; FREEHILLS PATENT ATTORNEYS; FPA PATENT ATTORNEYS PTY LTD; BORDEN LADNER GERVAIS LLP; SARGENT; RAMIRO CASTRO DUQUE; BEACHAM ANNABEL ROSE

Designated states: AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT UA UG UZ VN YU ZA ZW

Title: THIN-FILM FABRICATION METHOD AND APPARATUS

Abstract: A thin-film fabrication method includes a spray step in which at least one thin-film composition material in liquid form is sprayed into a vacuum vessel via a spray nozzle provided for each thin-film composition material and deposited on a substrate, and a heat treatment step in which the material deposited on the substrate is heat treated. The substrate temperature in the spray step and/or the heat treatment step is controlled within a prescribed temperature range.

Classifications:

International (IPC 8-9): B01J19/00 B05B12/10 B05B7/24 B05D1/02 B05D3/00 B05D7/24 B29C41/08 B29C41/50 C08J5/18 C23C26/00 C23C4/12 H01L51/50 H05B33/10 (Advanced/Invention); B01J19/00 B05B12/08 B05B7/24 B05D1/02 B05D3/00 B05D7/24 B29C41/08 B29C41/34 C08J5/18 C23C26/00 C23C4/12 H01L51/50 H05B33/10 (Core/Invention)

International (IPC 1-7): B01J19/00 B05B1/00 B05B12/10 B05B7/24 B05C11/00 B05D1/02 B05D3/00 B05D5/12 B08B7/00 B29C41/08 C08J5/18 C23C14/22 C23C16/02 C23C26/00 C23C4/12 H05B6/06

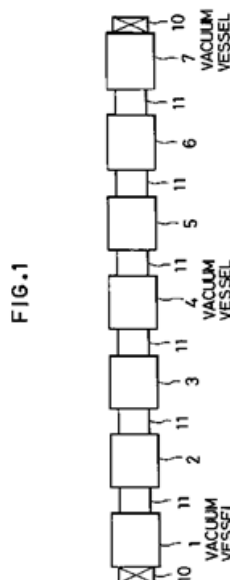
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European: B05D1/60 B29C41/08 B29C41/50 L29C791/00E4 L29L11/00

US: 118/50.1 118/501 118/641 118/666 118/725 427/372.2 427/521 427/553 427/557

PatBase - US6319321_BA

U.S. Patent Nov. 20, 2001 Sheet 1 of 5 US 6,319,321 B1

**Family:**

Publication number	Publication date	Application number	Application date
DE69807949 D1	20021024	DE19986007949T	19980119
DE69807949 D1	20021024	DE19986007949	19980119
DE69807949 T2	20030522	DE19986007949T	19980119
EP0854024 A2	19980722	EP19980300355	19980119
EP0854024 A3	19981028	EP19980300355	19980119
EP0854024 B1	20020918	EP19980300355	19980119
JP10202153 A2	19980804	JP19970007419	19970120
JP3162313 B2	20010425	JP19970007419	19970120
US6319321 BA	20011120	US19980009694	19980120

Priority:

JP19970007419 19970120

Probable Assignee: AGENCY OF INDUSTRIAL SCIENCE AND TECHNOLOGY MINISTRY OF INT TRADE AND IND

Assignee(s): (std): DAINICHISEIKA COLOR CHEM ; MINISTRY OF INT TRADE AND IND ; DAINICHISEIKA COLOR AND CHEMICALS MFG CO LTD ; HIRAGA TAKASHI ; MORIYA TETSUO ; AGENCY IND SCIENCE TECHN ; NAT INST OF ADVANCED IND SCIEN

Assignee(s): NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE ; NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY INDEPENDENT ADMINISTRATIVE INSTITUTION ; NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY ; NATIONAL INST OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY INDEPENDENT ADMINISTRATIVE INSTITUTION ; AGENCY OF INDUSTRIAL SCIENCE AND TECHNOLOGY OF MINISTRY OF INTERNATIONAL TRADE AND INDUSTRY ; DAINICHISEIKA COLOR AND CHEMICALS MFGCO LTD ; AGENCY OF IND SCIENCE AND TECHNOL ; AGENCY OF INDUSTRIAL SCIENCE AND TECHNOLOGY MINIST ; AGENCY OF INDUSTRIAL SCIENCE AND TECHNOLOGY MINISTRY OF INT TRADE AND IND ; AGENCY OF INDUSTRIAL SCIENCE AND TECHNOLOGY MINISTRY OF INTERNATIONAL TRADE AND INDUSTRY ; DAINICHISEIKA COLOR AND CHEM MFG CO LTD ; AGENCY OF INDUSTRIAL SCIENCE AND TECHNOLOGY OF MIN ; DAINICHISEIKA COLOR AND CHEMICALS MFG CO

Inventor(s): (std): YANAGIMOTO HIROMITSU ; TANAKA NORIO ; MORIYA TETSUO ; HIRAGA TAKASHI

Designated states: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Title: NONWOVEN WEBS HAVING REDUCED LINT AND SLOUGH

Abstract: Nonwoven webs having reduced levels of lint and slough are disclosed. In accordance with the present invention, the nonwoven webs are treated on at least one surface with a small amount of a polymeric component. The polymeric component may be present, for instance, in the form of meltblown fibers. The meltblown fibers are made from a polymer that is compatible with the nonwoven web. By adding relatively small amounts of meltblown fibers to at least one side of the nonwoven material, lint and slough levels have been found to be significantly reduced. The nonwoven web may be any web

containing pulp fibers, such as a tissue web or a coform web.

Classifications:

International (IPC 8-9): A61K8/02 A61Q19/00 B32B21/02 B32B5/22 B32B5/26 D04H13/00 D21H17/33 D21H21/18 (Advanced/Invention); A61K8/02 B32B5/22 B32B5/26 D04H13/00 (Advanced/Non-invention); A61K8/02 A61Q19/00 B32B21/00 B32B5/22 D04H13/00 (Core/Invention); B32B5/26 D04H13/00 (Core/Non-invention)

International (IPC 1-7): B32B21/10 B32B29/02 B32B3/00 B32B5/02 B32B5/08 B32B5/26 B32B9/00 D04H1/00 D04H1/56 D04H13/00 D04H3/00 D04H5/00 D21H17/33 D21H21/18

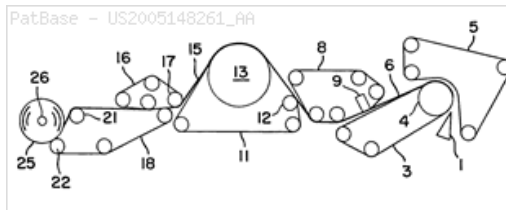
CPC: Y10T442/20 Y10T442/659 Y10T442/68 Y10T442/693

Y10T442/695 A61K8/0208 A61Q19/00 D04H5/02 D04H5/03 D04H5/06 D04H1/425 D04H1/4374 D04H1/56 D04H1/732 B32B5/022 B32B5/08 B32B27/18 B32B27/20 B32B27/306 B32B2432/00 B32B2555/00 B32B2555/02 B32B5/26 B32B21/02

European: A61K8/02C A61Q19/00 B32B21/02 B32B5/26 D04H13/00B2 D04H13/00B3B D04H5/02 D04H5/03 D04H5/06

US: 442/381 442/381P 442/400 442/400S 442/412 442/412S 442/413 442/413S 442/59 442/59S

PatBase - US2005148261_AA



Family:

Publication number	Publication date	Application number	Application date
AU2004312298 AA	20050721	AU20040312298	20041115
AU2004312298 BB	20100513	AU20040312298	20041115
BRPI0405752 A	20050920	BR2004PI05752	20041216
BRPI0405752 B1	20161122	BR2004PI05752	20041216
DE602004022988 D1	20091015	DE200460022988T	20041115
EP1704273 A1	20060927	EP20040811156	20041115
EP1704273 B1	20090902	EP20040811156	20041115
KR101212885 B1	20121214	KR20067013015	20041115
KR20060115908 A	20061110	KR20067013015	20041115
TW200530450 A	20050916	TW20040139114	20041216
TWI316568 B	20091101	TW20040139114	20041216
US2005148261 AA	20050707	US20030748454	20031230
WO05066405 A1	20050721	WO2004US38340	20041115

Priority:

US20030748454 20031230 WO2004US38340 20041115

Probable Assignee: KIMBERTY CLARK WORLDWIDE INC

Assignee(s): (std): ANDERSON GARY V ; BAER DAVID J ; BEDNARZ JULIE MARIE ; CHEN FUNG JOU ; CLOSE KENNETH B ; KIMBERLY CLARK CO ; KOPACZ THOMAS J ; LINDSAY JEFFREY D ; KIMBERLY CLARK CORP

Assignee(s): KIMBERLY CLARK WORLDWIDE INC ; KIMBERTY CLARK WORLDWIDE INC ; KIMBERLY CLARK WORLDWIDE INC US

Inventor(s): (std): ANDERSON GARY V ; BAER DAVID J ; BAER DAVID JON ; BEDNARZ JULIE M ; BEDNARZ JULIE MARIE ; CHEN FUNG JOU ; CLOSE KENNETH B ; CLOSE KENNETH BRADLEY ; DAVID JON BAER ; FUNG JOU CHEN ; JEFFREY DEAN LINDSAY ; JULIE MARIE BEDNARZ ; KENNETH B CLOSE ; GARY V ANDERSON ; KOPACZ THOMAS J ; KOPACZ THOMAS JOSEPH ; LINDSAY JEFFREY D ; LINDSAY JEFFREY DEAN ; THOMAS JOSEPH KOPACZ ; KENNETH BRADLEY CLOSE

Inventor(s): THOMAS J KOPACZ ; LINDSAY JEFFREY ; JEFFREY D LINDSAY ; ANDERSON GARY ; KOPACZ THOMAS ; FUNG-JOU CHEN ; DAVID J BAER ; CLOSE KENNETH ; BEDNARZ JULIE ; BAER DAVID

Agent(s): SPRUSON AND FERGUSON; DAVIES CHRISTOPHER ROBERT; DORITY AND MANNING PA

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

77) Family number: 3177669 (EP0377289A2)

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Title: CONTROL-DEPTH DIE-CUTTABLE PRESSURE-SENSITIVE LABELS.

Abstract: A cast extruded film suitable for controlled-depth die-cuttable label face-stock comprising: a) from about 70 parts to about 30 parts of a polypropylene homopolymer or a blend of polypropylene and at least one other olefinic polymer, and b) correspondingly, from about 30 parts to 70 parts of an inorganic filler, wherein said polypropylene film is controlled depth die-cuttable with a bearer force of not more than about 120 kilograms, and has tensile and elongation at break values of not more than 20,000 kilopascals and 750 percent respectively.

Classifications:

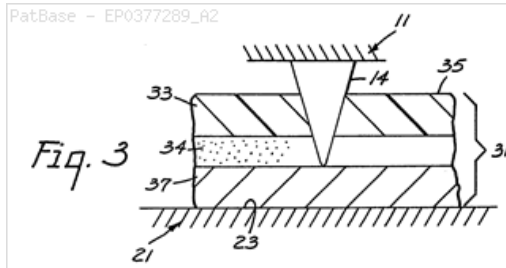
International (IPC 8-9): C08J5/18 C08K3/00 C08K3/16 C08K3/20 C08K3/34 C08L23/10 G09F3/02 (Advanced/Invention); C08J5/18 C08K3/00 (Advanced/Non-invention); C08J5/18 C08K3/00 C08L23/00 G09F3/02 (Core/Invention)

International (IPC 1-7): B31D1/02 B32B27/32 C08J5/18 C08K3/00 C08K3/20 C08K3/22 C08K3/26 C08K3/30 C08K3/34 C08L23/10 C08L23/12 G09F3/02

CPC: G09F3/02 G09F2003/0255 G09F2003/0267

European: G09F3/02 S09F3/02A13 S09F3/02A15C

PatBase - EP0377289_A2



Family:

Publication number	Publication date	Application number	Application date
AU198945986 A1	19900712	AU19890045986	19891206
AU617022 B2	19911114	AU19890045986	19891206
CA2005105 AA	19900705	CA19892005105	19891211
EP0377289 A2	19900711	EP19890312943	19891212
EP0377289 A3	19920226	EP19890312943	19891212
JP2251537 A2	19901009	JP19890345045	19891228

Priority:

US19890292087 19890105 CA19892005105 19891211

Probable Assignee: 3M CO

Assignee(s): (std): MINNESOTA MINING AND MFG ; 3M CO

Assignee(s): MINNESOTA MINING AND MANUFACTURING COMPANY ; MINNESOTA MINING AND MFG CO ; MINNESOTA MINING AND MFG CO 3M ; MINNESOTA MINING AND MFG CO It 3M gt ; MORIN GEORGE E

Inventor(s): (std): JIYOOJI YUJIN MORIN ; MORIN GEORGE E ; MORIN GEORGE E C O MINNESOTA M ; MORIN GEORGE EUGENE

Inventor(s): GEORGE EUGENE MORIN ; MORIN GEORGE E C O MINNESOTA MINING AND

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; SMART AND BIGGAR

Designated states: DE ES FR GB IT NL SE

78) Family number: 79677 (US3487141A)

© PatBase

Title: SYSTEM AND METHOD FOR THE MANUFACTURE OF POLYESTER AND THE LIKE

Abstract: ABSTRACT OF THE DISCLOSURE

A reactor system for the manufacture of polyester and like material comprising a reactor in which polymeriza-tion takes place with the reactor being provided with discharge means in the form of a straight-through, smooth walled flow passage for the discharge of material out of the reactor and into the atmosphere. A conveyor system is located below the valve for the reception of an unconfined continuous, generally eircular cross-sectioned flow of material from the reactor. The conveyor system comprises a steel belt, the upper course of which passes through the nip of a pair of rolls for sheeting the circular cross-sectioned stream of material received by the upper course of the belt. The conveyor belt is sprayed with water to cool it and prevent sticking of the material to the belt. The roll contacting the material may also be water cooled either internally or externally, or both. Special valving is used to open and close the material discharge passage in the reactor. The foregoing abstract is not to be taken as limiting the invention of this application, and in order to understand the full nature and extent of the technical disclosure of this application, reference must be tnade to the accom-panying drawings and the following detailed description.

Classifications:

International (ipc 8-9): B29B7/00 B29B9/02 B29B9/04 B29C33/00 B29C43/00 B29C43/24 B29C43/32 B29C43/34 B29C47/00

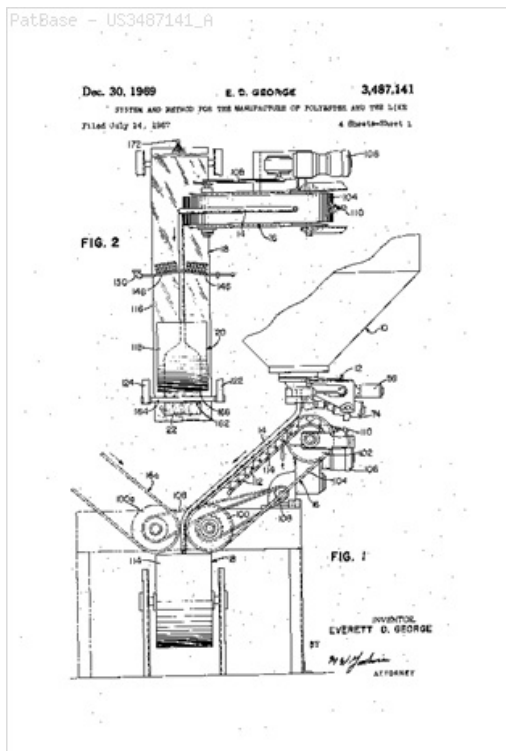
B29C47/90 B29D7/02 C08G63/78 (Advanced/Invention); B29B7/00 B29B9/02 B29C33/00 B29C43/00 B29C43/24 B29C43/32 B29C43/34 B29C47/00 B29C47/90 C08G63/00 (Core/Invention)

International (ipc 1-7): B29B5/00 B29B5/02 B29D7/10 B29D7/14 B29G C08G17/003

CPC: B29B9/02 B29B9/04 B29C43/24 C08G63/785

European: B29B9/02 B29B9/04 B29C43/24 C08G63/78A

US: 222/559 264/175 264/216 264/331.21 422/131 425/101 425/167 425/404 528/271



Family:

Publication number	Publication date	Application number	Application date
AU3883468 A1	19691212	AU19680038834	19680605
BE717901 A	19681216		19680710
DE1770586 A1	19711118	DE19681770586	19680607
FR1573533 A	19690704		19680709
GB1210581 A	19701028	GB19680026779	19680605
JP48011580 B4	19730414	JP19680045654	19680702
NL6809562 A	19690116	NL19680009562	19680705
SE342403 B	19720207	SE19680009659	19680712
US3487141 A	19691230	US19670653384	19670714

Priority:

US19670653384 19670714

Probable Assignee: GOODYEAR CO

Assignee(s): (std): GOODYEAR CO ; GOODYEAR TIRE AND RUBBER

Assignee(s): GOODYEAR TIRE AND RUBBER CO ; GOODYEAR TIRE AND RUBBER CO THE ; THE GOODYEAR TIRE AND RUBBER CO ; THE GOODYEAR TIRE AND RUBBER COMPANY

Inventor(s): (std): GEORGE EVERETT D ; GEORGE E

Inventor(s): EVERETT D GEORGE ; EVERETT DWAYNE GEORGE

Title: COLLATION OF SHEET MATERIAL

Abstract: (Claim 1) 1. The method of collating carbon and paper sheets comprising feeding a continuous carbon web by a feed roller to a pair of rollers spaced therefrom, rotating said pair of rollers at a higher peripheral speed than said feed roller, gripping the leading edge of said carbon web by one of said pair of rollers at a predetermined point thereon, forming a slack loop in said carbon web between said feed roll and said one roller as said carbon web is gripped by said one roller, severing said carbon web after said carbon web is gripped by said one roller and before said slack loop is taken up to form a carbon sheet gripped by said one roller, feeding a paper sheet to the other of said pair of rollers, bringing said sheets into contact with one another between said pair of rollers, and attaching said sheets together as they pass between said pair of rollers.

Classifications:

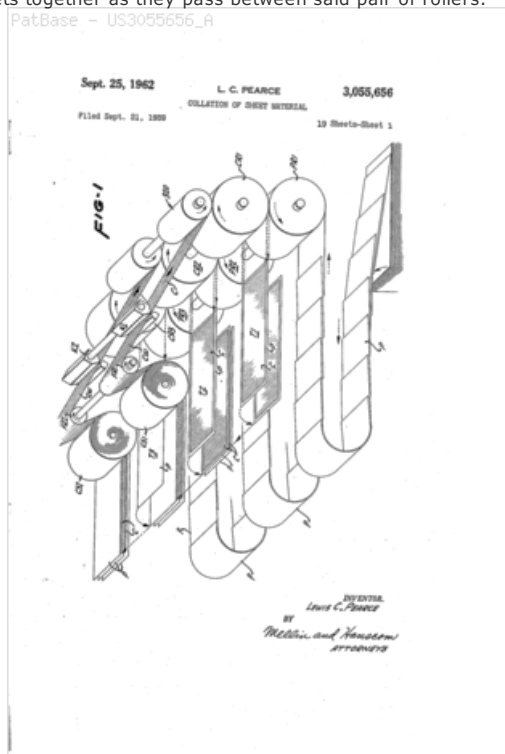
International (IPC 8-9): B41L1/00 (Advanced/Invention);
B41L1/00 (Core/Invention)

International (IPC 1-7): B42C1/10

CPC: B41L1/00 Y10T83/2094

European: B41L1/00

US: 270/58.04 270/58.08 83/110



Family:

Publication number	Publication date	Application number	Application date
US3055656 A	19620925	US19590841110	19590921

Priority:

US19590841110 19590921

Probable Assignee: PEARCE DEV CO

Assignee(s): (std): PEARCE DEV CO ; PEARCE DEV COMPANY

Assignee(s): PEARCE DEVELOPMENT CO ; PEARCE DEVELOPMENT COMPANY

Inventor(s): (std): PEARCE LEWIS C

Title: APPARATUS FOR LASTING SHOES

Abstract: 1. A lasting machine of the kind wherein a rotary work-advancing roll and a cooperating part, having a work-engaging surface substantially parallel to the axis of the roll, grip the upper between them and advance the work uninterruptedly while updrawing stress is being applied to the upper, and having a gauge for contact with the outer surface of the upper thereby properly to locate the shoe relatively to the work-advancing means, characterized in that the gauge is a disk-like roll disposed to turn freely about a substantially vertical axis and having a substantially flat upper surface and a work-engaging edge, and a stationary rigid wiper blade, vertically thin and horizontally disposed, having a free end portion provided with a smoothly rounded work-engaging edge, said wiper blade being interposed between the planes of the lower end of the work-advancing roll and the upper surface of the gauge roll, the free end portion of the wiper blade being so located relatively to the axis of the work-advancing roll that it overlaps the bottom of a shoe whose upper is operatively engaged by the work-advancing roll and contacts the upper closely adjacent to the delivery side of said roll.

Classifications:

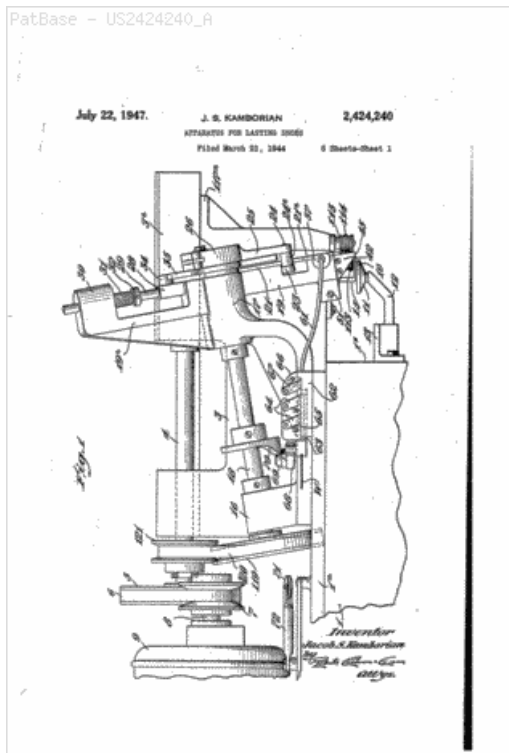
International (IPC 8-9): A43D75/00 (Advanced/Invention);
A43D75/00 (Core/Invention)

International (IPC 1-7): A43D15/00

CPC: A43D75/00

European: A43D75/00

US: 12/13.1 12/8.3

**Family:**

Publication number	Publication date	Application number	Application date
US2424240 A	19470722	US19440527387	19440321

Priority:

US19440527387 19440321

Probable Assignee:

KAMBORIAN JACOB S

Assignee(s): (std):

KAMBORIAN JACOB S

Inventor(s): (std):

KAMBORIAN JACOB S

81) Family number: 29370701 (US2003041801A)

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Title: INDUSTRIAL VAPOR CONVEYANCE AND DEPOSITION

Abstract: A process for deposition and condensation and reaction and separation and distillation employing at least two chambers separated by a diaphragm with at least one separation wall and at least one orifice or flow duct or plurality thereof, said process providing a controlled and stationary conveyance capacity of an uncondensed intermediary phase for a product or by-product with a controlled concentration, structure or microstructure, for example, said conveyance capacity relying on a controlled pressure of an atmosphere in the at least two chambers on both side of said diaphragm and on a novel diaphragm and condenser technology and a temperature control of one or more chamber walls or said diaphragm or parts of said diaphragm being transversed by said uncondensed intermediary phase. For a given pressure (difference) in the at least two chambers, surface roughness and form (such as cross and transverse section including widening, nozzle, funnel, flow and guide elements, heat exchanger, bifurcation and bend) and geometry including form and size of such structural part components of an orifice or flow duct or a combination of them affect the driving force for the resulting rate of conveyance and, for a given conveyance capacity, the resulting rate of deposition or condensation or reaction or separation or distillation via said uncondensed intermediary phase per orifice or flow duct. The new process includes (i) a condensation-free formation of a reservoir of an uncondensed phase under controlled flow conditions in front of a diaphragm, (ii) local pulse forces in an orifice or flow duct being controlled by local flow speed or local flow density or local flow pressure of said uncondensed phase to provide macroscopic control of an uncondensed intermediary and final phase or material and (iii) controlled conveyance and production rates under conditions of said local control and being independent from gravitational acceleration so orientation of individual modules or units or assembly of a production plant.

Classifications:**International (IPC 8-9):** C22C21/00 C22C23/00 C22C23/06

C22C45/00 C23C14/14 C23C14/22 (Advanced/Invention);

C22C21/00 C22C23/00 C22C45/00 (Advanced/Non-invention)

International (IPC 1-7): C22C21/00 C22C23/00 C22C23/06

C22C45/00 C22F3/00 C23C14/14 C23C14/22 C23C14/54

C23C16/00 F15D1/02

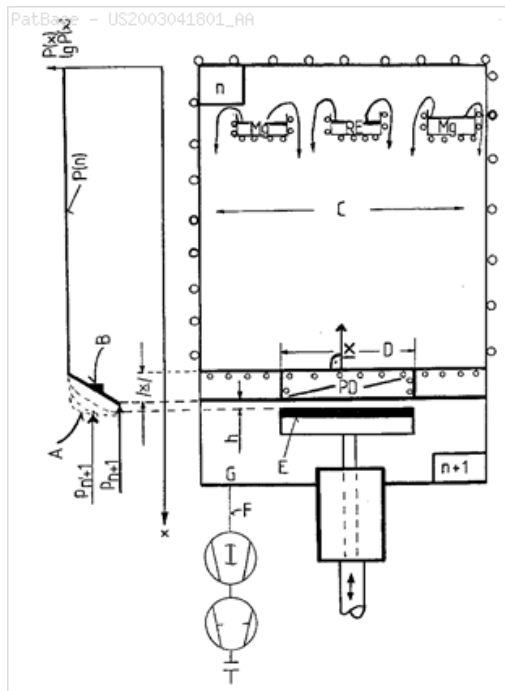
CPC: Y10T137/85938 Y02T50/67 C23C14/14 C23C14/22**European:** C23C14/14 C23C14/22 Y02T50/67**US:** 118/715 118/718 118/718S 118/723 118/723VE 137/561.00A

137/561A 138/38 138/38S 138/4 138/40 138/40S 138/42 138/44

148/404 148/406 148/42 148/420 148/420S 148/437 148/437S

148/666 148/667 420/402 420/407 420/407S 427/248.1

427/248.100S 427/255.5 95/45 96/4

**Family:**

Publication number	Publication date	Application number	Application date
AU199537084 A1	19960304	AU19950037084	19950719
AU199539734 A1	19960304	AU19950039734	19950731
EP0772698 A1	19970514	EP19950926967	19950719
EP0815282 A2	19980107	EP19950944461	19950731
JP10506150 T2	19980616	JP19960506141T	19950719
US2003041801 AA	20030306	US20010766644	20010123
US2003183306 AA	20031002	US20020265467	20021007
US6248399 BA	20010619	US19970776381	19970303
US6544357 BA	20030408	US19970776382	19970131
US6908516 BB	20050621	US20020265467	20021007
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WO9604409 A1	19960215	WO1995EP02882	19950719
WO9604410 A1	19960215	WO1995EP03076	19950731

Priority:

EP19940111991	19940801	EP19950926967	19950719	WO1995EP02882	19950719
EP19950944461	19950731	WO1995EP03076	19950731	US19970776382	19970131
US19970776381	19970303	US20010766644	20010123	US20020265467	20021007

Probable Assignee: HEHMANN FRANZ**Assignee(s):** (std): FRANZ HEHMANN ; HEHMANN FRANZ ; HEHMANN FRANZ DR ; WEIDEMANN MICHAEL**Assignee(s):** HEHMANN FRANZ IBURGER STRASSE**Inventor(s):** (std): FRANZ HEHMANN ; MICHAEL WEIDEMANN ; WEIDEMANN MICHAEL ; HEHMANN FRANZ DR ; HEHMANN FRANZ**Agent(s):** FOLEY AND LARDNER LLP; FOLEY AND LARDNER**Designated states:** AT AU BE CA CH CN DE DK ES FR GB GR IE IT JP KR LI LU MC NL PT RU SE US**82) Family number: 30537740 (US4121402A)**

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Title: METHODS AND MEANS FOR MANUFACTURING FOAM PLASTIC CONTAINERS AND SIDEWALL BLANKS FOR SAME

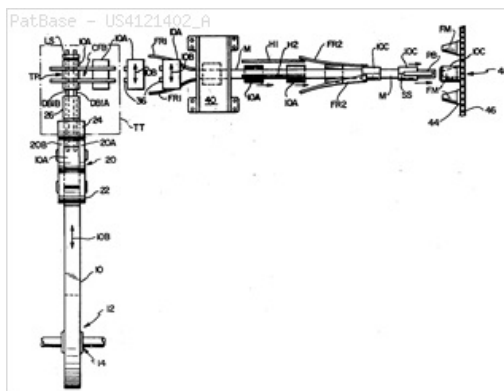
Abstract: Preprinted rectangular blanks of longitudinally stretch-oriented foam sheet material are formed into cylinders by a continuous folder and seamer and transferred onto mandrels on which they are shrunk by heat to assume the shape of the mandrel. In forming containers, means are provided to place bottom blanks on the mandrels prior to the loading of the cylinders thereon so as to shrink the cylinders to sidewall shapes overlying the bottom blanks. The top curl on containers such as drinking cups and food tubs is formed after shrink forming and the bottom seam of the container is also reinforced by ironing after shrink forming. A method of continuously forcing and filling containers on a continuous in-line basis is also provided.

Classifications:

International (IPC 8-9): B26D7/00 B29C33/58 B29C53/00 B29C53/50 B29C57/00 B29C57/12 B29C59/00 B29C61/00 B29C61/02 B29C65/18 B29C65/78 B29C67/00 B29C67/20 B29C69/00 B29C69/02 B29D22/00 B65C9/18 B65D1/00 B65H35/04 B65H5/34 (Advanced/Invention); B29C53/00 B29C57/00 B29C59/00 B29C61/00 B29C67/00 B29C67/20 B29C69/02 B29D22/00 B65D1/00 (Advanced/Non-invention); B29C33/56 B29C53/00 B29C57/00 B29C59/00 B29C61/00 B29C65/18 B29C65/78 B29C67/00 B29C67/20 B29C69/00 B29C69/02 B29D22/00 B65C9/08 B65D1/00 B65H35/04 B65H5/34 (Core/Invention)

International (IPC 1-7): B26D7/00 B26D7/06 B29B1/14 B29C17/02 B29C17/08 B29C24/00 B29C25/00 B29C27/02 B29C27/14 B29C27/28 B29C3/02 B29C53/34 B29C57/00 B29C61/02 B29C61/10

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Priority:

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US19820413871 19820901	US19870188141 19871201	

Probable Assignee: SWEETHEART CUP CO INC

Assignee(s): (std): MARYLAND CUP CORP

Assignee(s): SWEETHEART CUP CO INC ; SWEETHEART HOLDING CORP ; LILY TULIP INC ; FORT HOWARD CUP CORP ; UNITED STATES TRUST CO ; STATE STREET BANK AND TRUST CO ; SWEETHEART CUP CO INC ; LILY TULIP INC A CORP OF DE ; MARYLAND CUP 10100 REISTERSTOWN ROAD OWINGS MILLS ; STATE STREET BANK AND TRUST CO OF CT NA ; UNITED STATES TRUST CO OF NEW YORK AGENT AS ; LILY TULIP INC A DE CORP ; MARYLAND CUP 10100 REISTERSTOWN ROAD OWINGS MILLS MARYLAND 21117 CORP ; UNITED STATES TRUST CO OF NEW YORK TRUSTEE AS ; BANK OF AMERICA NA ; BANKAMERICA BUSINESSCREDIT INC ; BANKAMERICA BUSINESSCREDIT INC AGENT AS ; BANKERS TRUST CO ; BANKERS TRUST CO COLLATERAL AGENT AS ; BUSSE CHARLES E ; CRESS ALLAN K

Inventor(s): (std): ALLAN K CRESS ; ARAN KEI KURESU ; BUSSE CHARLES E ; CHAARUZU II BUTSUSA ; CHARLES E BUSSE ; CHIYAARUZU II BUTSUSA ; CHIYAARUZU II PUTSUSA ; CRESS ALLAN K

Agent(s): EDWD WATERS AND SONS; WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; BORDEN LADNER GERVAIS LLP

Designated states: AT BE CH DE FR GB IT LI LU NL SE

83) Family number: 42243767 (US2002016122A)

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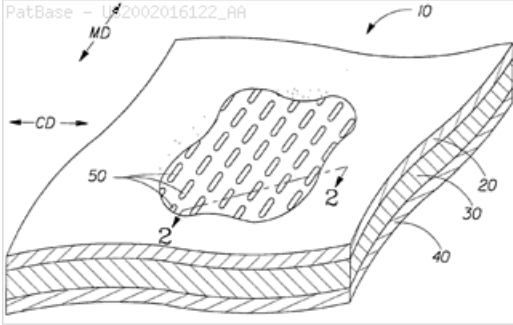
Title: ELASTIC LAMINATE WEB

Abstract: An elastic laminate web is disclosed. The elastic laminate web can be non-apertured or apertured, and comprises a first web, and a second web joined to the first web in a face to face relationship at a plurality of discrete bond sites having an aspect ratio of at least 2. The first and second webs form an interior region therebetween. An elastic material is disposed between the first and second webs. The elastic material is apertured in regions coincident the bond sites, such that the first

and second webs are joined through the apertures. The laminate so produced can be stretched in a predetermined direction, such as by incremental stretching, to produce an apertured elastic laminate.

Classifications:

International (IPC 8-9): A47L1/15 A47L13/16 A47L13/17 A61F A61F13/00 A61F13/15 A61F13/472 A61F13/49 A61F13/511 A61F13/512 A61F13/514 A61F13/53 A61F13/535 A61F13/539 A61F13/56 A61F5/44 A61F5/48 A61K8/00 A61K8/02 A61K8/73 A61Q1/00 A61Q1/02 A61Q15/00 A61Q17/04 A61Q19/00 A61Q19/02 A61Q19/10 A61Q5/12 A61Q90/00 B26F1/08 B26F1/20 B26F1/24 B29C31/00 B29C55/02 B29C55/18 B29C59/00 B29C59/04 B29C65/00 B29C65/02 B29C65/18 B29C65/74 B29C69/00 B29D31/00 B29D99/00 B29L31/48 B32B B32B15/04 B32B25/10 B32B27/02 B32B27/06 B32B3/02 B32B3/06 B32B3/10 B32B3/24 B32B3/26 B32B37/00 B32B37/12 B32B37/14 B32B37/16 B32B37/30 B32B38/00 B32B38/04 B32B5/02 B32B5/04 B32B5/22 B32B5/24 B32B5/26 B32B7/02 B32B7/04 B65D33/36 B65D75/30 B65D75/58 C11D17/04 D04H1/54 D04H1/559 D04H13/00 D21H27/30 D21H27/32 H01B1/00 H01B7/08 (Advanced/Invention); A61F13/539 A61F5/44 A61K8/00 A61K8/02 A61Q1/00 A61Q19/00 A61Q19/10 B29C59/04 B29L31/48 B32B37/12 B32B38/00 B32B5/02 D04H1/54 (Advanced/Non-invention); A47L13/16 A61F13/15 A61F5/44 A61K8/00 A61K8/02 A61K8/72 A61Q1/00 A61Q1/02 A61Q15/00 A61Q17/04 A61Q19/00 A61Q19/02 A61Q19/10 A61Q5/12 A61Q90/00 B26F1/00 B29C55/18 B32B3/24 B32B38/04 B32B5/22 B32B7/04 C11D17/04 D04H13/00 (Core/Invention); B32B (Subclass/Invention); A61F (Subclass/Non-invention)



International (IPC 1-7): A22C13/00 A47L13/16 A47L13/17 A61F13/00 A61F13/15 A61F13/472 A61F13/49 A61F13/511 A61F13/514 A61F13/53 A61F13/539 A61F13/539 A61F5/44 A61F5/48 A61K7/00 A61K7/02 A61K7/32 A61K7/42 A61K7/50 B26F1/08 B29C31/00 B29D22/00 B29D23/00 B29D31/00 B31C1/00 B31D1/00 B32B1/08 B32B15/14 B32B23/02 B32B25/10 B32B27/02 B32B27/06 B32B27/12 B32B27/14 B32B3/00 B32B3/06 B32B3/10 B32B3/24 B32B3/26 B32B31/00 B32B31/20 B32B5/00 B32B5/02 B32B5/04 B32B5/06 B32B5/18 B32B5/22 B32B5/24 B32B5/26 B32B7/02 B32B7/04 B32B9/00 B65D33/36 B65D75/30 B65D75/58 B65H81/00 D04H1/00 D04H1/54 D04H13/00 D04H3/00 D04H5/00 D21H27/30 D21H27/32 H01B1/00 H01B1/20 H01B1/22 H01B7/00 H01B7/02 H02G1/00

CPC: B29C69/00 B29C55/023 B29C59/007 B29C59/04 B29C65/02 B29C65/18 B29C65/7437 B29C66/21 B29C66/436 B29C66/45 B29C66/4722 B29C66/83413 B29C66/83511 B29C2793/0045 B29K2105/0854 B29K2995/0068 B29L2009/00 B29L2031/4878 B29L2031/737 B29L2031/7374 B65D75/30 H01B7/0838 A61F2013/51165 A61F2013/51182 A61F2013/51322 B32B2555/02 B65D75/58 A61F13/15707 A61F13/15756 A61F13/5146 A61F13/536 B29C66/83411 B29C66/81433 Y10T428/24298 Y10T428/24314 Y10T428/24322 Y10T428/24331 Y10T428/24562 Y10T428/24612 Y10T428/2481 Y10T428/24826 Y10T428/24851 Y10T428/24777 Y10T428/23 Y10T428/234 Y10T428/237 Y10T428/24041 Y10T428/24273 Y10T428/24479 Y10T428/24942 B29C55/18 Y10T428/233 Y10T428/24496 Y10T428/1324 Y10T428/1362 Y10T428/239 Y10T428/2457 B29C66/727 B29C66/7294 B29C66/729 Y10T442/668 Y10T442/671 Y10T442/69 Y10T442/60 Y10T442/651 Y10T442/673 Y10T442/674 Y10T442/674 Y10T442/654 Y10T442/655 Y10T442/657 Y10T442/659 Y10T442/647 Y10T442/656 Y10T442/693 Y10T442/601 Y10T442/602 Y10T442/679 Y10T442/3472 Y10T442/637 Y10T442/2525 B29C66/71 B29C66/73921 B29C66/7392 B29C66/7394 B29C66/73941 B29C65/06 B29C65/08 Y10T428/249994 Y10T428/249995 Y10T428/249921 Y10T428/249924 Y10T428/249939 B29C66/73143 D04H1/425 D04H1/559 A61F13/51113 A61F13/51394 A61F13/15593 A61F13/15699 A61F13/15731 A61F13/4902 A61F13/51104 A61F13/5123 A61F13/51464 A61F13/51476 A61F13/51478 A61F13/00 A61F13/51121 A61F13/5116 A61F13/513 A47L13/17 A61F13/53 A61F13/537 A61F13/539 A61F2013/53782 A61F13/8405 A61Q19/00 A61Q19/10 B26F1/20 B26F1/24 A61F13/512 B32B5/022 B32B5/08 B32B7/12 B32B27/12 B32B27/32 B32B2262/0253 B32B2262/062 B32B2262/065 B32B2262/067 B32B2262/12 B32B2262/14 B32B2264/00 B32B2307/31 B32B2307/718 B32B2307/726 B32B2307/732 B32B2437/00 B32B2479/00 B32B2535/00 B29C66/232 B29C66/234 B29C66/723 B29C66/72321 B29C66/72328 B29C66/72343 B29C66/1122 B32B15/14 B32B15/046 B32B15/00C B32B27/322 B32B2457/00 B32B2307/204 B32B2305/026 B32B5/18 B32B5/245 B32B29/002 B32B29/02 B32B2311/00 B32B37/0076 B32B2305/18 A47L1/15 B32B15/04 B32B2037/0092 B32B2307/202 C11D17/049 B32B5/04 A61K8/0208 B32B3/266 B32B5/26 B32B7/04 B32B27/06 B32B37/12 B32B37/144 B32B38/0004 B32B38/0012 B32B38/04 B32B2038/0028 B32B2038/047 B32B2305/20 B32B2307/51 B29C66/1312 A61F13/511 B32B7/05 B29C48/0018 B29C48/0021 B29C48/08 B29C48/12 B29C48/21

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US2005276956 AA	20051215	US20050205831	20050817
US6716498 BB	20040406	US20010886830	20010621
US6730622 BB	20040504	US20010886894	20010621
US6808791 BB	20041026	US20010886740	20010621
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US6863960 BB	20050308	US20010886893	20010621
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US6884494 BA	20050426	US19990467938	19991221
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US7037569 BB	20060502	US20000149878	20001220
US7220332 BB	20070522	US20040768364	20040130
WO0145613 A1	20010628	WO2000US34650	20001220

WO0145615 A1	20010628	WO2000US34745	20001220
WO0145616 A1	20010628	WO2000US34746	20001220
WO03000162 A1	20030103	WO2002US19469	20020619
WO03000165 A1	20030103	WO2002US19511	20020619
WO03000487 A2	20030103	WO2002US19470	20020619
WO03000487 A3	20030731	WO2002US19470	20020619
WO03001538 A1	20030103	WO2002US19468	20020619
WO03011585 A1	20030213	WO2002US23193	20020719
ZA200400695 A	20041011	ZA20040000695	20040128

Priority:

US19990467938	19991221	US20000553641	20000420	US20000553871	20000420
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WO2002US19469	20020619	US20020192372	20020710	WO2002US23193	20020719
US20040768364	20040130	US20050205831	20050817		

Probable Assignee: PROCTER AND GAMBLE CO

Assignee(s): (std): CURRO JOHN JOSEPH ; PROCTER AND GAMBLE ; P AND G CO ; BENSON DOUGLAS HERRIN ; STRUBE JOHN BRIAN

Assignee(s): SPENCER ANTHONY STEPHEN ; CURRO JOHN J ; ALWATTARI ALI ABDELAZIZ ; BENSON DOUGLAS H ; DUGAS MICHAEL BERNARD ; PROCTER AND GAMBLE CO ; PROCTER AND GAMBLE CO ; MANSFIELD MICHELE ANN ; KAMINISKI ANNEKE MARGARET ; DYE DEBORAH RUTH ; PROCTER AND GAMBLE CO CINCINNATI ; PROCTER AND GAMBLE CO ONE PROCTER AND GAMBLE PLAZA ; THE PROCTER AND GAMBLE COMPANY ; THE PROCTER AND GAMBLE CO ; ZINK RONALD JOSEPH ; STRUBE JOHN B

Inventor(s): (std): CURRO JOHN ; BENSON DOUGLAS ; STRUBE JOHN ; ZINK RONALD JOSEPH ; ZINK RONALD J II ; ZINGELMANN JESSICA ; STRUBE JOHN BRIAN ; STRUBE JOHN BRAIN ; STRUBE JOHN B ; STAHL EDWARD KENNETH ; SPENCER ANTHONY STEPHEN ; ROBERSON CHARLES DETWILER ; PECK DANIEL CHARLES ; OYE D R ; MICHAEL BERNARD DUGAS ; MARGARET KAMINISKI ANNEKE ; MANSFIELD MICHELLE ANN ; MANSFIELD MICHELE ANN ; MANSFIELD CURRO JOHN JOSEPH AL ; KOEHLER DEBORAH ADAMO ; KAMINISKI ANNEKE MARGARET ; KAMINISKI ANNEKA MARGARET ; JOSEPH CURRO JOHN ; JONES WALTER GOMER ; HERRIN BENSON DOUGLAS ; GILLETTE SAMUEL MARK ; FERESHTEHKHOU SAED ; DYE DEBORAH RUTH ; DYE D R ; DUGAS RONALD JOSEPH ZINK MICHA ; DUGAS MICHAEL BERNARD ; DUGAS MICHAEL B ; DOUGLAS HERRIN BENSON ; CURRO JOHN JOSEPH ; CURRO JOHN J ; CURRO J J ; BROWN JESSICA ZINGELMANN ; BRIAN STRUBE JOHN ; BRIAN CURRO JOHN JOSEPH BENSON ; BENSON DOUGLAS HERRIN ; BENSON DOUGLAS H ; BENSON D H ; BALDWIN JR ALFRED FRANK ; BALDWIN ALFRED FRANK ; ANN MANSFIELD MICHELE ; ALWATTARI ALI ABDELAZIZ ; ABDELAZIZ ALWATTARI ALI

Inventor(s): SPENCER ANTHONY STEPHEN WOODSTOCK ; BALDWIN JR ALFRED FRANC ; DH BENSON ; DEBORAH RUTH DYE ; D R OYE ; D R DYE ; D H BENSON ; CURRO JOHN JOSEPH BENSON DOUGLAS HERRIN STRUBE JOHN BRIAN ; CURRO JOHN JOSEPH BENSON DOUGLAS HERRIN STRUBE ; CURRO JOHN JOSEPH ALWATTARI ALI ABDELAZIZ BENSON DOUGLAS HERRIN KAMINISKI ANNEKE MARGARET MANSFIELDMICHELE ANN STRUBE JOHN BRIAN ; CURRO JOHN JOSEPH ALWATTARI ALI ABDELAZIZ ; DUGAS MICHAEL ; DR OYE ; DR DYE ; JOHN JOSEPH CURRO ; JOHN BRIAN STRUBE ; JOHN BRAIN STRUBE ; JJ CURRO ; J J CURRO ; RONALD JOSEPH ZINK MICHAEL BERNARD DUGAS ; RONALD JOSEPH ZINK ; STRUBE JOHN BRIAN HAMILTON ; ZINK RONALD ; STRUBE JOHN BRIAN OKEANA ; ZINK RONALD JII ; BENSON DOUGLAS HERRIN WEST HARRISON ; CURRO JOHN JOSEPH CINCINNATI ; KAMINISKI ANNEKA MARGARET CINCINNATI ; MANSFIELD MICHELLE ANN CINCINNATI

Agent(s): PHILLIPS ORMONDE FITZPATRICK; MBM INTELLECTUAL PROPERTY LAW LLP; GOWLING LAFLEUR HENDERSON LLP; MBM AND CO; DIMOCK STRATTON LLP; HEIDE UTE; KREMER VERONIQUE MARIE JOSEPHINE; LLOYD WISE AND CO 4005 TOWER TWO LIPPO CENTRE 89 QUEENSWAY CENTRAL; LLOYD WISE AND CO; SOGA MICHITERU; SOGA MICHIHARU; NAGAI HIROSHI; THE PROCTER AND GAMBLE COMPANY, INTELLECTUAL PROPERTY DIVISION; PROCTER AND GAMBLE CO INTELLECTUAL PROPERTY DIVISION; STONE ANGELA MARIE; BULLOCK RODDY M; ANGELA MARIE; RODDY M; DAVID K; PETER D; DAVID M; JAY A; LEONARD W

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

84) Family number: 48492768 (US2011214570A)

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Title: AIR FILTRATION MEDIUM WITH IMPROVED DUST LOADING CAPACITY AND IMPROVED RESISTANCE TO HIGH HUMIDITY ENVIRONMENT

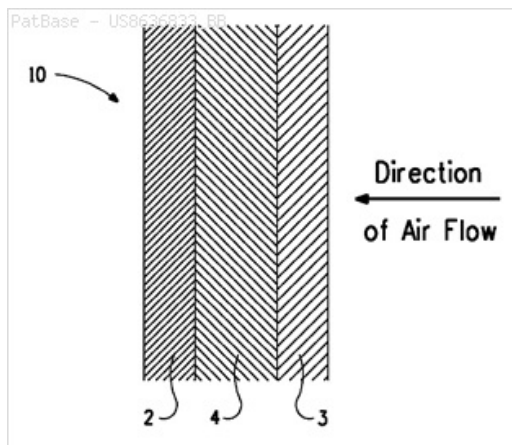
Abstract: A method for filtering particles from water mist laden air involves passing the air through a medium that has a nanoweb layer in fluid contact with a hydrophobic nonwoven web. The hydrophobic web can be made of an intrinsically hydrophobic material, or can be coated with a hydrophobic coating. The medium does not undergo the large pressure drops normally associated with filtration of water mists and retains its efficiency well.

Classifications:

International (IPC 8-9): B01D39/08 B01D39/16 B01D46/00
B01D46/54 B01D69/10 B01D69/12 B01D71/26 (Advanced/Invention)
CPC: B01D39/1623 B01D2239/025 B01D2239/065 B01D39/083
B01D2325/38

European: B01D39/16B4 L01D239/02H L01D239/06F

US: 55/486 55/524 95/287 95/287P



Family:

Publication number	Publication date	Application number	Application date
BR112012005978 A2	20170606	BR20121105978	20100910
CN102630182 A	20120808	CN201080052009	20100910
CN102630182 B	20150506	CN201080052009	20100910
EP2477712 A1	20120725	EP20100755051	20100910
IN02303DN2012 A	20150821	IN2012DN02303	20120316
JP2013505122 T2	20130214	JP20120529805T	20100910
JP5727488 B2	20150603	JP20120529805T	20100910
KR101752019 B1	20170628	KR20127009475	20100910
KR20120081138 A	20120718	KR20127009475	20100910
US2011214570 AA	20110908	US20100878084	20100909
US8636833 BB	20140128	US20100878084	20100909
WO11034782 A1	20110324	WO2010US48362	20100910

Priority:

US20090242879P 20090916 US20100878084 20100909 WO2010US48362 20100910

Probable Assignee: E I DU PONT DE NEMOURS AND CO

Assignee(s): (std): CHI CHENG HANG ; DU PONT ; ZHANG LU ; LIM HYUN SUNG ; JONES DAVID CHARLES ; EIDU PONT DE NEMOURS AND CO

Assignee(s): E I DU PONT DE NEMOURS AND CO ; E I DU PONT DE NEMOURS AND COMPANY ; EI DU PONT DE NEMOURS AND CO

Inventor(s): (std): CHARLES JONES DAVID ; SUNG LIM HYUN ; CHENG HANG CHI ; LU ZHANG ; DAVID CHARLES JONES ; HYUN SUNG LIM ; JONES DAVID CHARLES ; CHI CHENG HANG ; LIM HYUN SUNG ; ZHANG LU

Inventor(s): JONES DAVID ; LIM HYUN

Agent(s): MORF JAN STEFAN; YAMASAKI KAZUO; HAKODA ATSUSHI; ICHIKAWA SATSUKI; KUMAKURA YOSHIO; ASAI KENJI; SIMON L; BENJAMIN STEVEN C

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

85) Family number: 1538768 (GB1603065A)

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Title: METHODS OF AND MACHINES FOR APPLYING LABELS TO SUBSTRATES

Abstract: DEVICE AND METHOD FOR RELEASE OF LABELS FROM LABEL TRANSFER WHEELS Release agents and applicator devices therefor are described for heat transfer wheels which deposit addressbearing labels onto articles being labeled. The release agent applied to the heated surface of the wheel prevents the offset of the printed matter on the wheel surface. Exemplary of the release agents are the mercapto-functional polysiloxanes.

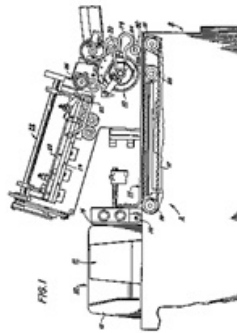
Classifications:

International (IPC 8-9): B65C3/00 B65C9/25 (Advanced/Invention); B65C9/00 (Core/Invention)

International (IPC 1-7): B05D5/08 B65C3/00 B65C9/25 B65C9/32

CPC: B65C9/25

European: B65C9/25

**Family:**

Publication number	Publication date	Application number	Application date
CA1099236 A1	19810414	CA19780303232	19780512
GB1603065 A	19811118	GB19780023941	19780530

Priority:

US19770802598 19770602 CA19780303232 19780512

Probable Assignee: XEROX CORP

Assignee(s): (std): XEROX CORP

Assignee(s): SEANOR DONALD A ; STRELLA STEPHEN

Inventor(s): (std): SEANOR DONALD A ; STRELLA STEPHEN

Agent(s): SIM AND MCBURNEY

86) Family number: 20727770 (US6432272B)

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Title: Compressed absorbent fibrous structures

Abstract: The present invention provides compressed paper webs that maintain a substantial amount of their absorptive capacity and wet strength when compressed. The compressed webs bounce back to a portion of their uncompressed state when wetted. The present compressed webs allow more towels to be added to a dispenser without substantially sacrificing the absorbent capacity or the strength of the towels.

Classifications:

International (IPC 8-9): A47K10/16 A61L15/16 D21F11/00 D21F11/14 D21H15/00 D21H25/00

D21H27/00 (Advanced/Invention);

A61L15/16 D21F11/00 D21H15/00 D21H25/00 D21H27/00 (Core/Invention)

International (IPC 1-7): A21F13/15 A61L15/16 D21F11/00 D21H15/00 D21H25/00 D21H27/00

CPC: D21F11/14 D21H25/005

European: D21F11/14 D21H25/00B

US: 162/158 162/164.1 162/164.3 162/168.3 162/204 162/206

Family:

Publication number	Publication date	Application number	Application date
AT330068 E	20060715	AT19990957582T	19991122
AU200015260 A1	20000703	AU20000015260	19991122
AU200015260 A5	20000703	AU20000015260	19991122
CA2352843 AA	20010529	CA19992352843	19991122
CA2352843 C	20100126	CA19992352843	19991122
CL1999002842 A1	20010103	CL19990002842	19991202
CO5111056 A1	20011226	CO19990078556	19991216
DE69931961 D1	20061102	DE19996031961	19991122
DE69931961 D1	20061102	DE19996031961T	19991122
DE69931961 T2	20061221	DE19996031961T	19991122
EG22131 A	20020830	EG19990001601	19991215
EP1147259 A1	20011024	EP19990957582	19991122
EP1147259 B1	20060614	EP19990957582	19991122
ES2267304 T3	20070301	ES19990957582T	19991122
PE12802000 A1	20001121	PE19990001286	19991217
TH42264 A	20010103	TH19991004648	19991213
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WO0036217 A1	20000622	WO1999US27636	19991122

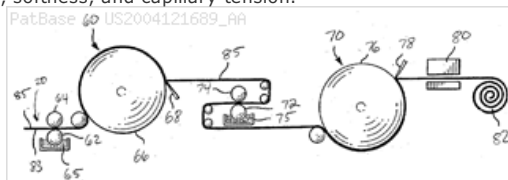
Priority:

Probable Assignee: KIMBERLY CLARK CORP**Assignee(s):** (std): KIMBERLY CLARK CO**Assignee(s):** KIMBERLY CLARK WORLDWIDE INC ; KIMBERLY CLARK WORLDWIDE INC ; MCCONNELL WESLEY J ; WOLKOWICZ RICHARD I ; KUCHIBHOTLA ANAND ; MITCHELL JOSEPH ; KIMBERLY CLARK CORP ; HOLLENBERG DAVID H ; HSU JAY C ; HU SHENG H**Inventor(s):** (std): MCCONNELL WESLEY J ; MITCHELL JOSEPH ; SHENG H HU ; WOLKOWICZ I ; WOLKOWICZ RICHARD I ; HOLLENBERG DAVID H ; HOLLENBERG H ; HSU C ; HSU JAY C ; HU H ; HU SHENG H ; KUCHIBHOTLA ANAND ; MCCONNELL J**Inventor(s):** MCCONNELL WESLEY ; HU SHENG H WOLKOWICZ RICHARD ; WESLEY J MCCONNELL ; RICHARD I WOLKOWICZ ; JOSEPH MITCHELL ; JAY C HSU ; DAVID H HOLLENBERG ; ANAND KUCHIBHOTLA**Agent(s):** BORDEN LADNER GERVAIS LLP; SARGENT; RAMIRO CASTRO DUQUE**Designated states:** AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG UZ VN YU ZA ZW**87) Family number: 30669773 (US2004121689A)**

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Title: ENTANGLED FABRICS CONTAINING STAPLE FIBERS**Abstract:** An entangled fabric that contains a nonwoven web hydraulically entangled with a fibrous component is provided. The nonwoven web is formed from staple fibers and is creped. For example, in one embodiment, the nonwoven web is a creped, point bonded, carded web. Excellent liquid handling properties can be achieved in accordance with the present invention without resulting in the poor liquid handling capabilities often associated with point bonded nonwoven webs. In fact, the entangled fabric of the present invention can have improved bulk, softness, and capillary tension.**Classifications:****International (IPC 8-9):** A47L13/16 B32B5/26 D04H1/45 D04H1/46 D04H1/54 D04H1/72 D04H13/00 (Advanced/Invention); D04H1/46 D04H13/00 (Advanced/Non-invention); D04H (Subclass/Non-invention)**International (IPC 1-7):** B31F1/12 B32B31/00 C09J1/00 D04H1/00 D04H1/06 D04H1/46 D04H11/08 D04H13/00 D04H3/00**CPC:** Y10T442/60 Y10T442/608 Y10T442/633 Y10T442/659 Y10T442/663 Y10T442/668 Y10T442/689 Y10T442/69 Y10T442/698

B32B5/26 D04H1/541 D04H1/425 D04H1/49 D04H1/498 D04H1/74 D04H1/492

European: B32B5/26 D04H1/54B D04H13/00B3B**US:** 156/182 156/182S 156/183 156/183S 156/229 162/111 162/113 264/282 28/103 442/327 442/327P 442/334 442/334P 442/357 442/357S 442/381 442/381S 442/384 442/384S 442/389 442/389S 442/408 442/408S 442/409 442/409S 442/416 442/416S**Family:**

Publication number	Publication date	Application number	Application date
AU2003267253 AA	20040729	AU20030267253	20030916
AU2003267253 BB	20080918	AU20030267253	20030916
BRPI0317058 A	20051025	BR2003PI17058	20030916
CA2508787 AA	20050606	CA20032508787	20030916
CN100507121 C	20090701	CN20038025532	20030916
CN1714185 A	20051228	CN20038025532	20030916
EP1579049 A1	20050928	EP20030749724	20030916
JP2006511730 T2	20060406	JP20040564729T	20030916
KR20050088372 A	20050905	KR20057010075	20030916
MXPA05006006 A1	20050818	MX2005PA06006	20030916
RU2005117390 A	20060120	RU20050117390	20030916
US2004121689 AA	20040624	US20020328751	20021223
US2005245160 AA	20051103	US20050180392	20050713
US6958103 BB	20051025	US20020328751	20021223
WO04061182 A1	20040722	WO2003US29175	20030916
ZA200504607 A	20060927	ZA20050004607	20050606

Priority:

US20020328751 20021223 WO2003US29175 20030916 US20050180392 20050713

Probable Assignee: KIMBERLY CLARK CORP**Assignee(s):** (std): ANDERSON RALPH L ; KIMBERLY CLARK CO ; VARONA EUGENIO G**Assignee(s):** ANDERSON RALPH ; KIMBERLY CLARK CORP ; KIMBERLY CLARK WORLDWIDE INC ; VARONA EUGENIO**Inventor(s):** (std): ANDERSON RALPH ; ANDERSON RALPH L ; ANDERSON RALPH L VARONA EUGENI ; EUGENIO GO VARONA ; VARONA EUGENIO ; VARONA EUGENIO G ; VARONA EUGENIO GO**Inventor(s):** EUGENIO VARONA ; RALPH ANDERSON ; RALPH L ANDERSON**Agent(s):** FREEHILLS PATENT ATTORNEYS; FREEHILLS PATENT AND TRADE MARK ATTORNEYS; HERBERT SMITH FREEHILLS; FREEHILLS PATENT ATTORNEY S; FPA PATENT ATTORNEYS PTY LTD; BORDEN LADNER GERVAIS LLP; DORITY AND MANNING PA**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW**88) Family number: 29171775 (US2003188566A)**

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Title: HYDRAULIC COMPRESSION TOOL AND HYDRAULIC COMPRESSION TOOL MOTOR**Abstract:** A transmission for connecting a rotary motor output shaft to a rectilinear actuator which is moveable rectilinearly

along an actuator axis of translation. The transmission comprises a frame, an eccentric, and a rectilinear guide. The frame has a bore formed therein. The eccentric is adapted to position the frame on the rotary motor output shaft. The eccentric is rotatably mounted in the bore of the frame to rotate relative to the frame. The rectilinear guide is connected to the frame. The rectilinear guide has a slide surface adapted to be slidably seated against the rectilinear actuator allowing the frame to slide substantially rectilinearly relative to the rectilinear actuator. While this drive is especially suited for use on a hydraulic crimping tool, the drive is also suited for use with any kind of hydraulic power tool.

Classifications:

International (IPC 8-9): B21D17/00 B21D37/04 B21D7/06

F03C1/013 F04B9/02 H01R43/042 (Advanced/Invention);

F03C1/00 F04B9/02 H01R43/04 (Core/Invention)

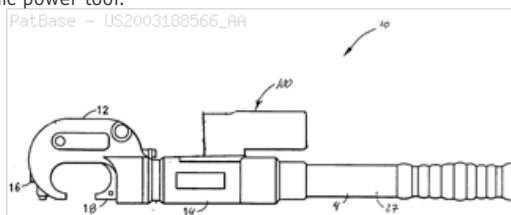
International (IPC 1-7): B21D17/00 B21D37/04 B21D7/06 B21D9/18

B21J9/18 B26B17/00 F03C1/013 F04B9/02 H01R43/042

CPC: Y10T29/53226 B25B27/10 H01R43/0427

European: B25B27/10 H01R43/042E

US: 29/751 30/180 72/453.03 72/453.15 72/453.16 72/453.160P



Family:

Publication number	Publication date	Application number	Application date
AU2003214162 AA	20031027	AU20030214162	20030313
BRPI0309253 A	20050222	BR2003PI09253	20030313
CA2481977 AA	20041008	CA20032481977	20030313
EP1497051 A1	20050119	EP20030711569	20030313
EP1497051 A4	20090812	EP20030711569	20030313
JP2005522618 T2	20050728	JP20030583675T	20030313
US2003188566 AA	20031009	US20020119456	20020409
US6668613 BB	20031230	US20020119456	20020409
WO03086676 A1	20031023	WO2003US07762	20030313

Priority:

US20020119456 20020409 WO2003US07762 20030313

Probable Assignee: HUBBELL INC

Assignee(s): (std): FCI AMERICAN TECHNOLOGY INC ; FCI AMERICAS TECHNOLOGY INC ; FRAMATOME CONNECTORS INT

Assignee(s): HUBBELL INC ; LEFAVOUR JOHN D ; MONTMINY ARMAND T ; BURNDY TECHNOLOGY LLC ; CHADBOURNE CHRISTOPHER G ; FCI

Inventor(s): (std): CHADBOURNE CHRISTOPHER G ; LEFAVOUR JOHN D ; MONTMINY ARMAND T

Inventor(s): CHRISTOPHER G CHADBOURNE ; JOHN D LEFAVOUR ; ARMAND T MONTMINY

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; BKP GP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

89) Family number: 30669777 (US2004121693A)

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Title: ENTANGLED FABRIC WIPERS FOR OIL AND GREASE ABSORBENCY

Abstract: A composite fabric comprising a necked and creped spunbond nonwoven web of monocomponent fibers hydraulically entangled with a fibrous component that comprises cellulosic fibers. The nonwoven web contains thermoplastic fibers and the fibrous component comprises greater than about 50 percent by weight of the fabric.

Classifications:

International (IPC 8-9): A47L13/16 B31F1/12 B32B5/02 D04H1/06

D04H1/42 D04H11/08 D04H13/00 D04H3/16

D06N7/04 (Advanced/Invention);

D04H1/42 D04H13/00 (Advanced/Non-invention);

A47L13/16 B31F1/00 B32B5/02 D04H1/00 D04H11/00 D04H13/00

D04H3/16 D06N7/00 (Core/Invention);

A47L B32B D04H (Subclass/Non-invention)

International (IPC 1-7): A47L13/16 B32B1/00 B32B5/02 D04H1/42

D04H13/00 D04H3/16 D06N7/04

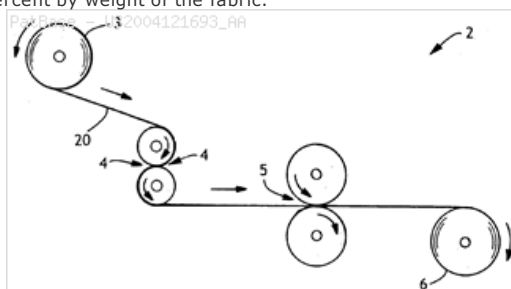
CPC: Y10T428/24446 D04H3/16 Y10T442/614 Y10T442/663

Y10T442/681 D04H1/498 D04H3/14 D04H5/03 D04H1/425

European: D04H13/00B3 D04H3/16

US: 156/183 156/229 162/111 162/113 264/282 28/103 428/152

442/34 442/340 442/384 442/401



Family:

Publication number	Publication date	Application number	Application date
AU2003297050 AA	20040729	AU20030297050	20031211
AU2003297050 BB	20080724	AU20030297050	20031211
BRPI0317143 A	20051025	BR2003PI17143	20031211
BRPI0317143 B1	20121225	BR2003PI17143	20031211
CA2509192 AA	20050608	CA20032509192	20031211
CA2509192 C	20110503	CA20032509192	20031211
CO5580849 A2	20051130	CO20050056062	20050609
DE60330273 D1	20100107	DE20036030273	20031211
EP1576223 A1	20050921	EP20030814765	20031211
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KR101072672 B1	20111011	KR20057010356	20031211
KR20050088376 A	20050905	KR20057010356	20031211
MXPA05006065 A1	20050816	MX2005PA06065	20031211
US2004121693 AA	20040624	US20020328450	20021223
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WO04061187 A1	20040722	WO2003US39736	20031211
ZA200504713 A	20060927	ZA20050004713	20050609

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90) Family number: 20975808 (US2173958A)

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Title: INSOLE-COVERING MACHINE

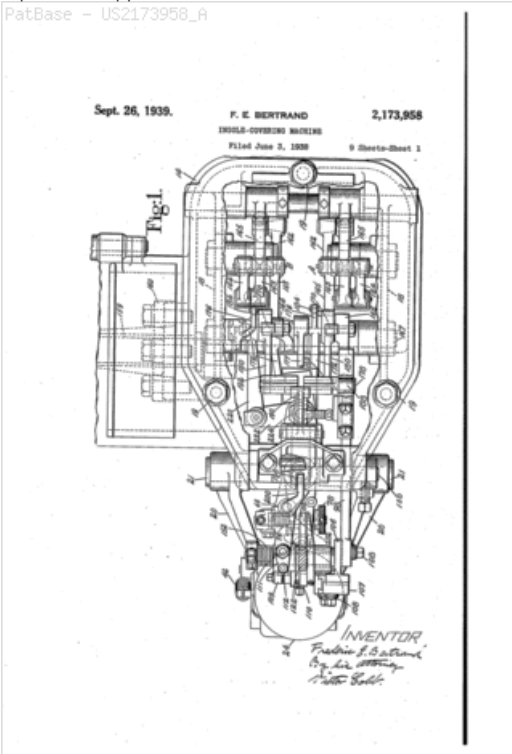
Abstract: Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a support for the insole, a member movable across the feather of the supported insole to operate upon the margin of the sheet, and a retaining member arranged to receive engagement of the outer margin of the insole before the folding of the sheet thereover. 2. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a support for the insole, a member movable across the feather of the supported insole to operate upon the margin of the sheet, and a retaining member movable across the insole-feather for engagement with the surface of the sheet opposite that thus operated upon. 3. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a support for the insole, a member movable across the feather of the supported insole to operate upon the margin of the sheet, and a retaining member yieldable transversely of the insole-feather. 4. In a machine for folding over the edge of a ribbed insolesheet-material secured to the surface opposite the rib, a support for the treadsurface of the insole, a member movable across the feather of the supported insole to operate upon the margin of the sheet, and a retaining member yieldable transversely of the insolefeather and arranged for engagement with the margin of the sheet. 5. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a support for the insole, a cutting member acting upon the margin of the sheet, a retaining member for the sheet-margin, and means for moving the retaining member toward the cutting member. 6. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a support for the treadsurface of the insole, a cutting member acting upon the margin of the sheet, and a retaining member movable against the sheet-margin inwardly of the insole from the cutting member. 7. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a support for the treadsurface of the insole, a folding and pressing member acting to force the margin of the sheet across the insole-feather, and a retaining member arranged for engagement with the outer portion of the insole-feather before it receives the action of the folding and pressing member, the retaining member being yieldable as the folding and pressing member acts. 8. In a folding machine, a work-supporting table, means movable inwardly across the table to fold the work, and a finger having a substantially vertical surface for retaining a portion of the work against folding and movable inwardly across the table by engagement of said work. 9. In a machine for folding one work-piece about another work-piece, a work-supporting table, means movable inwardly across the table to fold the first of the work-pieces, a retaining finger movable across the table and having separate surfaces for engagement with the respective work-pieces, and a spring urging the finger outwardly across the table against the action of the first of the work-pieces. 10. In a folding machine, a work-supporting table, a carrier mounted to oscillate above the table, cutting and folding members movable upon the carrier, means for oscillating the carrier to advance the work in the engagement of the cutting and folding members, and a finger pivoted upon the carrier and movable by the work. 11. In a folding machine, a work-supporting table, a carrier mounted to oscillate above the table, cutting and folding members movable upon the carrier, means for oscillating the carrier to advance the work in the engagement of the cutting and folding members, a finger pivoted upon the carrier for contact with the work, and a spring connecting the finger to the carrier. 12. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a support for the insole, a supporting member movable transversely of the feather of the supported insole, a cutter mounted upon the supporting member to act upon the margin of the sheet-material, and a member movable by the supporting member and bodily upon said supporting member to force the material against the insole-rib and insole-feather. 13. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a support for the insole, a supporting member movable transversely of the feather of the supported insole, a cutter mounted upon the supporting member to act upon the margin of the sheet-material, a folding and pressing member mounted to move upon the supporting member, said folding and pressing member acting to force the material against the insole-rib in the cutting movement of the cutter, and means for moving the folding and pressing member upon the supporting member to force the material against the insole-feather. 14. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a support for the treadsurface of the insole, a supporting member movable transversely of the feather of the supported insole, a cutter mounted upon the supporting member to act upon the margin of the sheet-material, a folding and pressing member mounted to move upon the supporting member, said folding and pressing member acting to force the material against the insole-rib in the cutting movement of the cutter, and a relatively stationary member into contact with which the folding and pressing member is moved by the supporting member to force the material against the insole-feather. 15. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a support for the treadsurface of the insole, a supporting member movable transversely of the feather of the supported insole, a cutter mounted upon the supporting member to act upon the margin of the sheet-material, a folding and pressing member mounted to move upon the supporting member, said folding and pressing member acting to force the material against the insole-rib in the cutting movement of the cutter, a relatively stationary member into contact with which the folding and pressing member is carried by the supporting member thereby moving the folding and pressing member upon said supporting member to force the material against the insole-feather, and a spring resisting the last-mentioned movement. 16. In a folding machine, a work-supporting table, a lever arranged to oscillate across the table with its end moving substantially parallel thereto and provided with ways extending in a substantially vertical direction, and a folding and pressing block movable in the ways upon the lever and co-operating with the table. 17. In a folding machine, a work-supporting table, a lever arranged to oscillate across the table, a folding and pressing block movable upon the lever and co-operating with the table, a spring urging the block upon the lever away from the table, and means for forcing the block toward the table. 18. In a folding machine, a work-supporting table, a lever arranged to oscillate across the table, a folding and pressing block movable upon the lever and co-operating with the table, said block being provided with an inclined surface, and a member with which the inclined surface contacts to force the block toward the table. 19. In a folding machine, a work-supporting table, a lever arranged to oscillate across the table, a folding and pressing block movable upon the lever and co-operating with the table, said block being provided with an inclined surface, a spring interposed between the lever and block, and a member with which the inclined surface contacts to force the block toward the table. 20. In a folding machine, a work-supporting table, a lever arranged to oscillate across the table

and provided with ways, a knife carried by the lever, and e. folding and pressing block movable in the ways upon the lever and co-operating with the table. 21. In a folding machine, a work-supporting table, a carrier arranged to oscillate above the table, a lever fulcrumed upon the carrier and oscillating across the table, a folding and pressing block movable upon the lever toward and from the table, and a member mounted upon the carrier and with which the block contacts to produce its movement upon the lever. 22. In a folding machine, a Work-supporting table, a carrier arranged to oscillate above the table, a lever fulcrumed upon the carrier and oscillating across the table, a knife fixed in the carrier, a folding and pressing block movable upon the lever toward and from the table, and a member mounted upon the carrier and with which the block contacts to produce its movement upon the lever. 23. In a folding machine, the combination with folding means, of a rotatable work-supporting table, a guide-block movable longitudinally of the axis of the table, a cylindrical slide guided in the block and provided with a head, and an edge-pressing member carried by the head and extending over the table. 24. In a folding machine, the combination with folding means, of a rotatable work-supporting table, a guide-block movable longitudinally of the axis of the table, a slide guided in the block and provided with a head, an edge-pressing member carried by the head and extending over the table, a torsion-spring engaging at its ends the block and the head of the slide, and means arranged to vary the force of the spring. 25. In a folding machine, the combination with a work-supporting table, of an oscillatory carrier, a folding member movable on the carrier over the table, a block, pins by which the block is guided for movement upon the carrier longitudinally of the axis of the table, a cylindrical slide guided in the block, and an edge-pressing member carried by the slide and extending over the table. 26. In a folding machine, the combination with a work-supporting table, of an oscillatory carrier, a folding member movable on the carrier over the table, a guide-block movable upon the carrier longitudinally of the axis of the table, a slide guided upon the block, a spindle rotatable in the carrier, a spring surrounding the spindle and secured thereto and to the slide, and means arranged to turn the spindle and secure it in different positions. 27. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a member movable into engagement with the margin of the sheet to fold it over the insole-feather and against the rib, actuating means for the member, constantly operating driving means, and means controlled by the insole for connecting the driving means to the actuating means. 28. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, members movable into engagement with the margin of the sheet to fold it over the insole-feather and against the rib, means for moving the folding members in engagement with the insole to advance it, actuating means for the folding members and advancing means, constantly operating driving means, and means controlled by the insole for connecting the driving means to the actuating means for both the folding members and the advancing means. 29. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a work-supporting table, cutting mechanism co-operating with the table, an actuating member for the cutting mechanism, a driving member for the actuating member, a member movable to connect the driving member and actuating member, and means controlled by the cutting mechanism to govern the movement of the connecting member. 30. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a movable Work-supporting table, a reciprocatory knife and a co-operating anvil associated with the table, the anvil being movable under the influence of said table, an actuating member for the knife, a driving member for the actuating member, a member movable to connect the driving member and actuating member, and a latch for the connecting member released by the movement of the anvil. 31. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a vertically movable table for supporting the insole, a carrier mounted for oscillation adjacent to the table and to move vertically, a reciprocatory knife and a co-operating anvil mounted upon the carrier, the anvil being movable by the insole under the influence of the table, an actuating member for the knife, an actuating member for the carrier, driving means for the actuating members, members for connecting the actuating members to the driving means, a latch for the connecting members, and means for communicating the movement of the anvil to the latch to release the connecting members therefrom. 32. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a support for the insole, cutting mechanism co-operating with the support, a carrier for the cutting mechanism movable by force applied to said cutting mechanism, and means for temporarily retaining the carrier in the position to which it is moved. 33. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a support for the insole, cutting mechanism co-operating with the support, a carrier for the cutting mechanism movable by force applied to said cutting mechanism, means for temporarily retaining the carrier in the position to which it is moved, and means acting as an incident to the control of the machine by the operator for freeing the carrier from the retaining means. 34. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a movable support for the insole, cutting mechanism co-operating with the support, a carrier for the cutting mechanism movable by force applied to said cutting mechanism, means for temporarily retaining the carrier in the position to which it is moved, and means acting in the movement of the support for freeing the carrier from the retaining means. 35. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a vertically movable insole-supporting table, a carrier mounted for oscillation adjacent to the table and to move vertically, a reciprocatory knife and co-operating anvil 1 O 2,173,958 mounted upon the carrier, the anvil being movable by the insole under the influence of the table, means arranged to move the table to press the supported insole against the anvil to move said anvil and the carrier, and retaining means for the carrier as it is thus moved, said retaining means being released upon reverse movement of the table. 36. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, members acting upon the margin of the sheet to cut and fold it over the insole-feather and against the rib, means for moving the cutting and folding members, means for connecting the members to and disconnecting them from the moving means, and means for locating the disconnected members in predetermined positions. 37. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, members acting upon the margin of the sheet to cut and fold it over the insole-feather and against the rib, a carrier upon which the members are movable, means for moving the carrier to advance the work, means for moving the members upon the carrier, a cutting member acting to move the carrier, means controlled by the last-mentioned movement of the carrier for connecting the carrier and the cutting and folding members to and disconnecting them from the moving means, and means for locating the disconnected carrier and members in predetermined positions. 38. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, members acting upon the margin of the sheet to cut and fold it over the insole-feather and against the rib and to feed the work, actuating mechanism for imparting to the members their cutting and folding movements, actuating mechanism by which the members are moved to feed the work for cutting and folding, driving mechanism for each actuating mechanism, means for connecting the actuating mechanisms to and disconnecting them from their driving mechanisms, and means for locating the disconnected mechanisms in predetermined positions. . . » - . 39. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, members acting upon the margin of the sheet to cut and fold it over the insole-feather and against the rib and to feed the work, actuating mechanism for imparting to the members their cutting and folding movements, actuating mechanism by which the members are moved to feed the work for cutting and folding, driving mechanism for each actuating mechanism, means for connecting the actuating mechanisms to and disconnecting them from their driving mechanisms, means for locating the disconnected mechanisms in predetermined positions, and means for holding the locating means ineffective during the operation of the machine. 40. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, members acting upon the margin of the sheet to cut and fold it over the insole-feather and against the rib, an actuating member for the cutting and folding members, said actuating member being provided with a contact-surface, a constantly operating driving member for the actuating member, means for connecting the actuating member to and disconnecting it from the driving member, a plunger engaging the contact-surface of the disconnected actuating member to locate it, and a latch for holding the plunger in an ineffective position during the operation of the machine. 41. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, members acting upon the margin of the sheet to cut it and fold it over the insole-feather and against the rib, means for moving the members to feed the work in successive steps for cutting and folding, and means arranged for actuation by the operator during the operation of the machine for changing the length of the feeding steps. 42. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, members acting upon the margin of the sheet to cut it and fold it over the insole-feather and against the rib, a carrier upon which the members are movable, an actuating member for moving the carrier with the cutting and folding members to advance the work, connections to the actuating member to move the carrier, and means arranged for movement by the operator during the operation of the machine to vary the relation of the connections to the elements joined and thereby change the rate of advance of the work. 43. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, members acting upon the margin of the sheet to cut it and fold it over the insole-feather and against the rib, a carrier upon which the members are movable, said carrier being provided with an arm, a movable arm adjacent to the carrier-arm, a device for connecting the arms and being variable in position longitudinally thereof, and an operator-actuated member for shifting the connecting device upon the arms during the operation of the machine. 44. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a support for the insole, members co-operating with the support and movable into engagement

with the margin of the sheet to cut it and fold it over the insole-feather and against the rib and to feed the Work, oscillatory members for moving the cutting, folding and feeding members, a lever, a member carried by the lever for clamping the insole upon the support, and a cam device for connecting one of the oscillatory members to the lever to actuate it. 45. In a machine for folding over the edge of a ribbed insole sheet-material secured to the surface opposite the rib, a support for the insole, members co-operating with the support and movable into engagement with the margin of the sheet to cut it and fold it over the insole-feather and against the rib and to feed the work, oscillatrcy members for moving the cutting, folding and feeding members, from one of which oscillatory members is a projection, a. lever provided with a cam-slot receiving the projection, and a member carried by the lever for clamping the insole upon the support

Classifications:
International (IPC 8-9): A43D43/06 (Advanced/Invention);
A43D43/00 (Core/Invention)
International (IPC 1-7): A43D43/06
CPC: A43D43/06
European: A43D43/06
US: 12/18.9 12/20 12/24.5 12/40



Family:

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US2173958 A	19390926	US19380211509	19380603

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US19380211509 19380603
Probable Assignee: UNITED SHOE MACHINERY CORP
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Inventor(s): (std): BERTRAND FREDERIC E

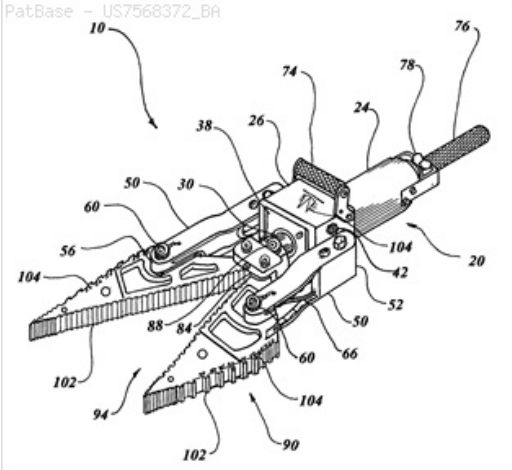
91) Family number: 43568818 (US7568372B)

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Title: HYDRAULIC RESCUE TOOL

Abstract: A hydraulic rescue tool (10) is comprised of a hydraulic thrust apparatus (20) consisting of a hydraulic cylinder body (24) having slots (28) within a hollow end and interlocking ears (36) protruding from the slots. A gland (38) is interfaced between the ears, with the gland and ears connected to the cylinder hollow end with threaded fasteners (98). A connecting link (50) is attached to each interlocking ear and a quick disconnect implement unit (22) is attached to each link and to a piston rod (30) within the cylinder body (24). Six dissimilar embodiments of implement units, each having quick disconnect capabilities and different vehicle structure separating utility are attached to the hydraulic thrust apparatus (20).

Classifications:
International (IPC 8-9): A62B3/00 B21C3/02 B21C3/06
B21J9/18 (Advanced/Invention);
B21C3/00 B21J9/00 (Core/Invention)
CPC: Y10S72/705 A62B3/005
European: A62B3/00B
US: 72/453.15 72/464 72/705



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Publication number	Publication date	Application number	Application date
EP2310154 A1	20110420	EP20090746913	20090430

EP2310154 A4	20131106	EP20090746913	20090430
US7568372 BA	20090804	US20080152004	20080513
WO09139824 A1	20091119	WO2009US02638	20090430

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US20080152004 20080513 WO2009US02638 20090430

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

92) Family number: 30360820 (US2004048542A)

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Title: MULTI-LAYER NONWOVEN FABRIC

Abstract: A nonwoven fabric includes a first composite layer that includes from about 50 percent to about 90 percent by weight non-thermoplastic absorbent staple fibers and from about 10 percent to about 50 percent by weight thermoplastic fibers. A preponderance of the fibers at a first outer surface of the first composite layer comprise non-thermoplastic absorbent staple fibers and a preponderance of the fibers at a second outer surface of the first composite layer comprise thermoplastic fibers. The nonwoven fabric further includes a second composite layer that includes from about 50 percent to about 90 percent by weight non-thermoplastic absorbent staple fibers and from about 10 percent to about 50 percent by weight thermoplastic fibers. The second composite layer is adjacent the second outer surface of the first composite layer. The nonwoven fabric further includes bonded regions wherein a portion of the thermoplastic fibers of the first composite layer are fused to a portion of the thermoplastic fibers of the second composite layer, and further wherein the bonded regions have a plurality of contiguous voids.

Classifications:

International (IPC 8-9): A47L13/16 A47L17/08 B32B5/06 B32B5/26 B32B7/08 D04H1/54 D04H13/00 D04H3/14 D04H5/06 (Advanced/Invention); A47L13/16 B32B5/26 D04H1/54 D04H13/00 (Advanced/Non-invention); A47L13/16 A47L17/00 B32B5/06 B32B5/22 B32B7/08 D04H1/54 D04H13/00 D04H3/14 D04H5/00 (Core/Invention); A47L B32B D04H (Subclass/Non-invention)

International (IPC 1-7): A47L13/16 B32B5/06 B32B5/26 B32B7/08 D04H1/54 D04H13/00

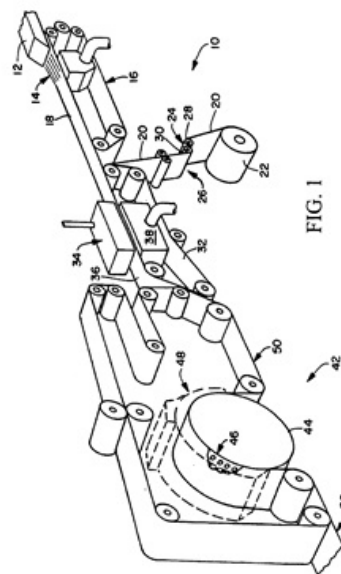
CPC: Y10T428/24826 Y10T442/659 Y10T442/668 Y10T442/689 Y10T442/69 Y10T442/692 Y10T442/695 Y10T442/697 Y10T442/698 D04H1/425 D04H1/4374 D04H1/732 D04H13/00 D04H1/559

European: D04H13/00B5

US: 428/198 442/381 442/389 442/408 442/409 442/411 442/413 442/415 442/416

PatBase - US2004048542_A1

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Publication number	Publication date	Application number	Application date
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AU2003259075 AA	20040329	AU20030259075	20030808
AU2003259075 BB	20080731	AU20030259075	20030808
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BRPI0313742 B1	20140429	BR2003PI13742	20030808
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CA2496582 C	20090512	CA20032496582	20030808
CN100436690 C	20081126	CN20038020027	20030808
CN1678785 A	20051005	CN20038020027	20030808
DE60324946 D1	20090108	DE20036024946	20030808
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WO04022832 A1	20040318	WO2003US24872	20030808
ZA200501598 A	20060426	ZA20050001598	20050223

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93) Family number: 30157836 (US2003114071A)

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Title: HIGH PULP CONTENT NONWOVEN COMPOSITE FABRIC

Abstract: A high pulp content nonwoven composite fabric is disclosed. The composite fabric contains 1) from more than about 0 to less than about 30 percent, by weight, of a nonwoven layer of conjugate spun filaments, the filaments containing at least one low-softening point component and at least one high-softening point component and having at least some exterior surfaces of the filaments composed of at least one low-softening point component; 2) more than about 70 percent, by weight, of pulp fibers; and 3) regions in which the low-softening point component at the exterior surfaces of the filaments is fused to at least a portion of the fibrous component. This high pulp content composite nonwoven fabric may be used as a heavy duty wiper or as a fluid distribution material, cover material, and/or absorbent material in an absorbent personal care product. Also disclosed is a method of making the high pulp content nonwoven composite fabric.

Classifications:

International (IPC 8-9): A47L13/16 A61F13/15 A61F13/49 A61F13/53 D04H1/04 D04H1/10 D04H1/46 D04H13/00 D04H3/00 D04H5/00 D04H5/02 D04H5/03 (Advanced/Invention);

A47L13/16 A61F13/15 D04H5/00 (Advanced/Non-invention);

D04H1/46 D04H13/00 (Core/Invention)

International (IPC 1-7): A47L13/16 A61F13/15 A61F13/48

B32B21/10 B32B5/16 D04H1/00 D04H1/02 D04H1/04 D04H1/10

D04H1/44 D04H1/46 D04H1/52 D04H1/54 D04H1/70 D04H3/00

D04H5/00 D04H5/02 D21H23/24

CPC: Y10S428/913 A61F13/537 A61F2013/15406 D04H5/03

Y10T428/252 Y10T428/253 Y10T442/681 Y10T442/689 Y10T442/695

Y10T442/637 Y10T442/638 Y10T442/641 Y10T442/696 Y10T442/697

Y10T442/698 Y10T442/699 D04H1/492 D04H1/49 D04H1/495

D04H1/425 D04H1/498

European: A61F13/537 D04H1/46B D04H13/00B3B D04H5/03

K61F13/15J8E

US: 162/103 162/108 162/109 162/115 162/123 162/125 162/127

162/128 162/129 162/130 162/136 162/146 162/158 162/168.1

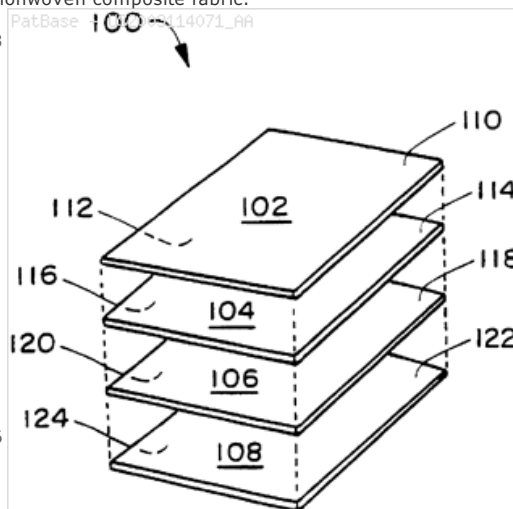
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28/104 428/224 428/283 428/284 428/288 428/299 428/325 428/326

428/913 442/361 442/361S 442/362 442/362S 442/364 442/364S

442/401 442/408 442/408S 442/413 442/413S 442/414 442/414P

442/415 442/415S 442/416 442/416S 442/417 442/417S



Family:

Publication number	Publication date	Application number	Application date
AU199188149 A1	19920625	AU19910088149	19911125
AU649284 B2	19940519	AU19910088149	19911125
BRPI9105555 A	19920901	BR1991PI05555	19911220
CA2048905 AA	19920622	CA19912048905	19910809
CA2048905 C	19980811	CA19912048905	19910809
DE69115002 D1	19960111	DE19916015002	19911220
DE69115002 T2	19960627	DE19916015002T	19911220
EP0492554 A1	19920701	EP19910122031	19911220
EP0492554 B1	19951129	EP19910122031	19911220
ES2082105 T3	19960316	ES19910122031T	19911220
JP2533260 B2	19960911	JP19910335404	19911219
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US2003114071 AA	20030619	US20020236734	20020909
US5284703 A	19940208	US19930000908	19930106
US5389202 A	19950214	US19930074571	19930609
US6784126 BB	20040831	US20020236734	20020909
ZA9109343 A	19920930	ZA19910009343	19911126

Priority:

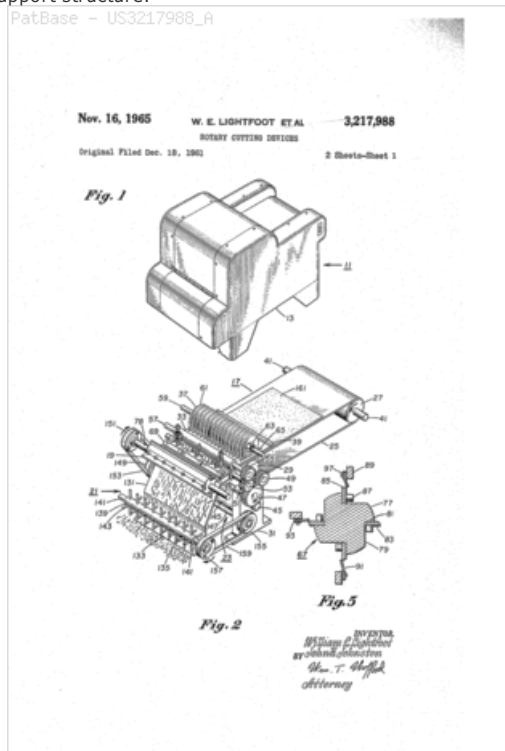
US19900633594 19901221 CA19912048905 19910809 US19930000908 19930106
US19930074571 19930609 US19950555352 19951108 US20020236734 20020909

Probable Assignee: KIMBERLY CLARK CORP**Assignee(s):** (std): KIMBERLY CLARK CO**Assignee(s):** KIMBERLY CLARK CORP ; KIMBERLY CLARK CORP NEENAH WIS US ; KIMBERLY CLARK WORLDWIDE INC ; RADWANSKI FRED R ; SKOOG HENRY ; EVERHART CHERIE H ; EVERHART CHERIE HARTMAN ; FISCHER DANIAL O ; FISCHER DANIAL OWEN**Inventor(s):** (std): CHERIE HARTMAN EVERHART ; CHERII HAATOMAN EUAHAATO ; CHERII HAATOMAN EBUAHAATO ; DANIAL OWEN FISCHER ; DANIERU OOEEN FUITSUSHAA ; DANIERU OOEEN FUITSUSHIYAA ; EVERHART CHERIE H ; EVERHART CHERIE HARTMAN ; EVERHART CHERIE HARTMANN ; FISCHER DANIAL O ; FRED HENRY SKOOG ; FRED ROBERT RADWANSKI ; FURETSUDO ROBAATO RADOWANSUKII ; HENRII SUKUUGU ; HENRY SHOOG ; HENRY SKOOG ; RADWANSKI FRED R ; RADWANSKI FRED ROBERT ; RADWANSKI ROBERT ; SHOOG HENRY ; SKOOG HENRY ; FISCHER DANIAL O ; FISCHER DANIAL OWEN**Inventor(s):** FISCHER DANIAL OWEN KNOXVILLE TN 37919 US ; SKOOG HENRY ROSWELL GA 30075 US ; RADWANSKI FRED ROBERT ROSWELL GA 30076 US ; EVERHART CHERIE HARTMANN ALPHARETTA GA 30201 US**Agent(s):** SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; BORDEN LADNER GERVAIS LLP**Designated states:** BE DE ES FR GB IT NL SE**94) Family number: 22903839** (US3217988A)

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Title: ROTARY CUTTING DEVICES

Abstract: (Claim 1) 1. Apparatus for cutting and shredding sheet-like or-ganic composite material one or more ingredients of which tends to become adhesive when heated, compris-ing in combination: a support structure, a rotatable cutter head journaled to said support structure and in-cluding a plurality of elongated cutter elements, means journaled to said support structure for supporting and advancing said material in a direction toward and sub-stantially perpendicular to the axis of said cutter head, means mounted to said support structure in front of said cutter head for continuously incising said material in the direction of material movement, an elongated cutter bar disposed parallel to the axis of said cutter head and in spaced relationship adjacent the front periphery of said rotating cutter elements, rotatable fracturing means disposed beyond and in spaced relationship to said cutter head, means for transferring said material to said fracturing means, driving means for rotating said cutter head at a predetermined speed relative to that of the material advancing means, and an upper plate disposed above and in adjacent parallel spaced relation to said cutter bar so as to contact the upper surface of said material, said upper plate being mounted on support means attached to said support structure.

Classifications:**International (IPC 8-9):** B26D1/38 (Advanced/Invention); B26D1/01 (Core/Invention)**International (IPC 1-7):** D21B1/10**CPC:** B26D1/38 Y10T83/242 Y10T83/498 Y10T83/501 Y10T83/6483 Y10T83/6491**European:** B26D1/38**US:** 241/101.4 241/154 241/157 241/167 241/186.35 241/221 241/243 83/168 83/356.1 83/356.3 83/404.4 83/408**Family:**

Publication number	Publication date	Application number	Application date
US3217988 A	19651116	US19630301943	19630809

Priority:

US19630301943 19630809

Probable Assignee: JOHNSTON JOHN H**Assignee(s):** (std): JOHNSTON JOHN H ; LIGHTFOOT WILLIAM E**Inventor(s):** (std): LIGHTFOOT WILLIAM E ; JOHNSTON JOHN H**95) Family number: 29597846** (WO9920822A1)

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Abstract: A method of making a textured nonwoven composite material. The method includes the steps of: providing a hydraulically entangled web containing a fibrous component and a nonwoven layer of substantially continuous filaments; applying a binder material to at least one side of the web; and compacting the web along at least one of its planar dimensions to increase its thickness and impart texture. The binder material may be an aqueous mixture including a curable latex polymer, a pigment, and a cure promoter. Also disclosed is a textured nonwoven composite material made of a hydraulically entangled web including a fibrous component; a nonwoven layer of substantially continuous filaments; and regions containing binder material covering at least a portion of at least one side of the composite material, in which the web has been compacted along at least one of its planar dimensions to increase its thickness and impart texture.

Classifications:

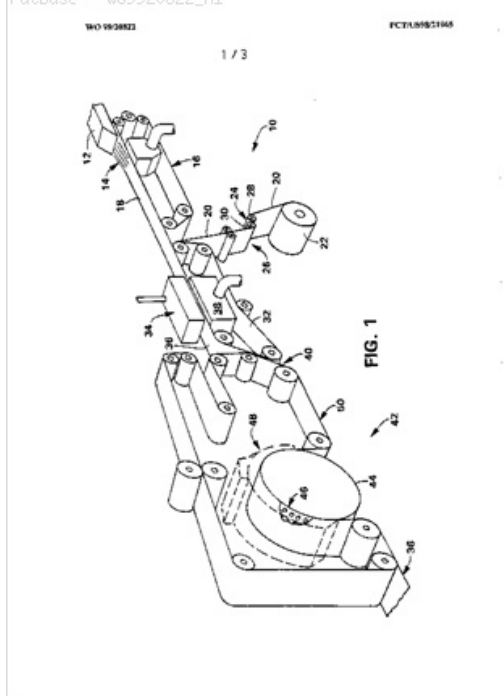
International (IPC 8-9): A47L13/16 D04H1/04 D04H1/46 D04H1/54 D04H1/64 D04H1/72 D04H3/02 D04H3/08 D04H5/02 D04H5/06 D21H17/67 D21H19/44 (Advanced/Invention); A47L13/16 D04H1/40 D04H1/58 D04H1/64 (Advanced/Non-invention); D04H1/46 D04H1/70 D04H3/08 (Core/Invention)

International (IPC 1-7): A47L13/16 D04H1/04 D04H1/40 D04H1/46 D04H1/54 D04H1/58 D04H1/64 D04H1/72 D04H3/02 D04H3/08 D04H5/02 D04H5/06 D21H17/67 D21H19/44

CPC: D04H1/49 D04H1/492 D04H1/495 D04H3/02 D04H1/54 D04H1/587 D04H1/64

European: D04H1/46B D04H1/54 D04H1/64C D04H3/02

PatBase - WO9920822_R1

**Family:**

Publication number	Publication date	Application number	Application date
AR017359 AA	20010905	AR1998P105182	19981016
AU199910980 A1	19990510	AU19990010980	19981016
AU731390 B2	20010329	AU19990010980	19981016
CA2306850 AA	20000405	CA19982306850	19981016
CL1998002362 A1	19990623	CL19980002362	19981001
CO5031320 A1	20010427	CO19980059686	19981014
EP1023479 A1	20000802	EP19980953659	19981016
JP2001520333 T2	20011030	JP20000517135T	19981016
KR20010015762 A	20010226	KR20007004061	19981016
TH39986 A	20000831	TH19981003923	19981009
TW404994 B	20000911	TW19980117108	19981015
WO9920822 A1	19990429	WO1998US21965	19981016

Priority:

US19970062975P 19971017 US19980111005 19980707 WO1998US21965 19981016

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): KIMBERLY CLARK CO ; KIMBERLY CLARK CORP

Assignee(s): KIMBERLY CLARK WORLDWIDE INC ; WATTS HUGO PAUL

Inventor(s): (std): HUGO PAUL WATTS ; WATTS HUGO P ; WATTS HUGO PAUL

Inventor(s): WATTS ; HUGO P ; HUGO P WATTS

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; BORDEN LADNER GERVAIS LLP; PORZIO; RAMIRO CASTRO DUQUE

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR GA GB GE GH GM GN GR GW HR HU ID IE IL IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT UA UG UZ VN YU ZW

96) Family number: 29446847 (US5397415A)

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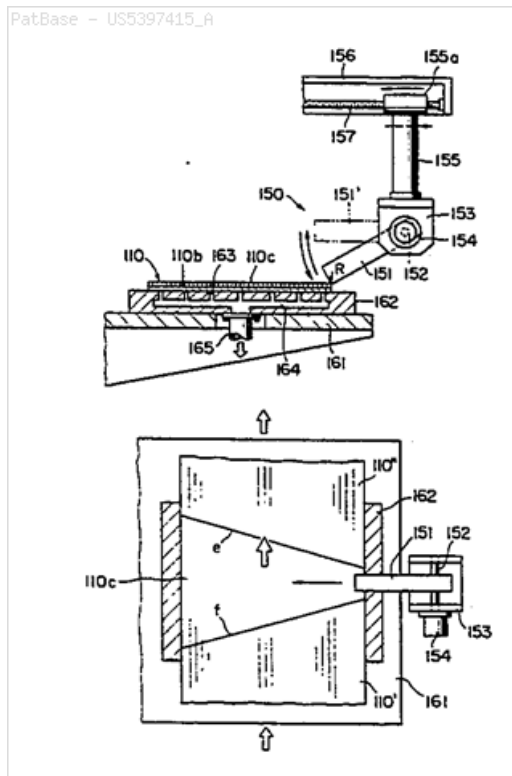
Title: METHOD FOR MANUFACTURING LAMINATED PREPREG MEMBERS

Abstract: A prepreg tape is firstly prepared by bonding prepreg layer to a backing paper and then the prepreg tape is cut to a depth enough to cut the prepreg tape but not the backing paper. An unnecessary portion of the prepreg tape is removed from the backing paper to obtain a cut prepreg tape. A laminating attachment is moved in a predetermined direction while urging the prepreg tape against the surface of an operating table. The cut prepreg tape is peeled off from the backing paper and the peeled off prepreg tape is bonded to the operating table. The cut prepreg tapes are successively oriented in a predetermined direction and juxtaposed to form a laminated sheet. The sheet is that mounted on a mold of a predetermined shape. When the impregnated thermosetting resin is perfectly cured under heat and pressure, a product useful for assembling various vehicles can be obtained.

Classifications:

International (IPC 8-9): B26D3/08 B26D3/10 B26D7/18 B26D7/26

B29B11/02 B29B11/04 B29B11/16 B29B15/08 B29C43/32
 B29C65/74 B29C65/78 B29C70/06 B29C70/38 B32B37/00
 B32B38/00 (Advanced/Invention);
 B29K105/08 B29K105/18 B29L31/30 B29L9/00 (Advanced/Non-
 invention);
 B29B11/00 B29B11/16 B29B15/08 B29C43/32 B29C65/74
 B29C65/78 B29C70/06 B32B37/00 B32B38/00 (Core/Invention)
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 B29B15/08 B29B15/10 B29C41/08 B29C43/32 B29C65/74
 B29C65/78 B29C67/12 B29C67/14 B29C69/00 B29C70/06
 B29C70/38 B29K105/18 B29L31/30 B29L9/00 B32B27/04 B32B31/00
 B32B31/00 B32B31/10 B32B31/12 B32B31/18 C08J5/24
CPC: Y10T156/1062 Y10T156/1075 Y10T156/108 Y10T156/1317
 Y10T156/1322 Y10T156/1348 Y10T156/1788 Y10T156/1983
 Y10T156/1994 B29C70/545 B26D3/08 B26D3/10 B26D7/18
 B26D7/2628 B29C70/386
European: B26D3/08 B26D3/10 B26D7/18 B26D7/26C B29C70/38D
 B29C70/54D
US: 156/234 156/235 156/238 156/247 156/248 156/256 156/264
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 156/523 156/574 156/584 156/765 156/767



Family:

Publication number	Publication date	Application number	Application date
DE4130269 A1	19920319	DE19914130269	19910912
DE4130269 C2	19960523	DE19914130269	19910912
JP2079847 C3	19960809	JP19900243257	19900913
JP2079848 C3	19960809	JP19900243258	19900913
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JP4058326 U1	19920519	JP19900100075U	19900925
JP4122611 A2	19920423	JP19900243257	19900913
JP4122645 A2	19920423	JP19900243258	19900913
JP7026099 Y2	19950614	JP19900100075U	19900925
JP7110498 B4	19951129	JP19900243257	19900913
JP7110499 B4	19951129	JP19900243258	19900913
US5397415 A	19950314	US19930130675	19931004
US5480508 A	19960102	US19940291090	19940818

Priority:

JP19900243257 19900913 JP19900243258 19900913 JP19900100075U 19900925
 US19910756235 19910910 US19930130675 19931004 US19940291090 19940818

Probable Assignee: TOSHIBA MACHINE CO LTD

Assignee(s): (std): FUJI HEAVY IND LTD ; TOSHIBA MACHINE CO LTD

Assignee(s): TOSHIBA KIKAI KABUSHIKI KAISHA ; TOSHIBA MACH CO LTD ; TOSHIBA KIKAI K K TOKIO TOKYO JP ; TOSHIBA KIKAI KK ; FUJI JUKOGYO K K ; FUJI JUKOGYO K K TOKIO TOKYO JP ; FUJI JUKOGYO KABUSHIKI KAISHA ; FUJI JUKOGYO KK ; TOSHIBA KIKAI K K

Inventor(s): (std): HATA SHOICHI ; INOUE TOMOHIRO ; KOKUBO MITSUNORI ; KONDO KIYOSHI ; MANABE TAKAO ; NAGAKURA YASUHIKO ; NAGASHIMA MITSUO ; NAKAJIMA YUKIO ; SHIN SHOICHI ; TSUNADA MASAFUMI ; YAMADA HIDEYUKI ; YAMAKAWA YUHEI

Inventor(s): YAMAKAWA YUHEI SHIZUOKA JP ; YAMADA HIDEYUKI SHIZUOKA JP ; TSUNADA MASAFUMI NUMAZU SHIZUOKA JP ; SHIN SHOICHI SHIZUOKA JP ; NAKAJIMA YUKIO UTSUNOMIYA TOCHIGI JP ; NAGASHIMA MITSUO ATAMI SHIZUOKA JP ; NAGAKURA YASUHIKO NUMAZU SHIZUOKA JP ; MANABE TAKAO SHIZUOKA JP ; KONDO KIYOSHI TOCHIGI JP ; KOKUBO MITSUNORI MISHIMA SHIZUOKA JP ; INOUE TOMOHIRO TOCHIGI JP

97) Family number: 21425865 (US1917374A)

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Title: RECEPTACLE MAKING APPARATUS

Abstract: 1. In receptacle forming apparatus, a mandrel, a plunger reciprocating in a direction toward and away from the mandrel to clamp a receptacle blank intermediate the sides thereof to the mandrel, a pair of flaps shaped to conform to the contour of the mandrel arranged at opposite sides of the plunger and longitudinal axis of the mandrel and having reciprocating movement in a direction toward and away from the mandrel in parallel relation to the clamping plunger and having movement in a direction toward each other, and means to yieldingly urge said flaps in a direction toward each other to wrap the opposite marginal portions of the blank about the mandrel under tension as said flaps are moved toward the mandrel, and means to secure the blank at the longitudinal marginal portions while on the mandrel.

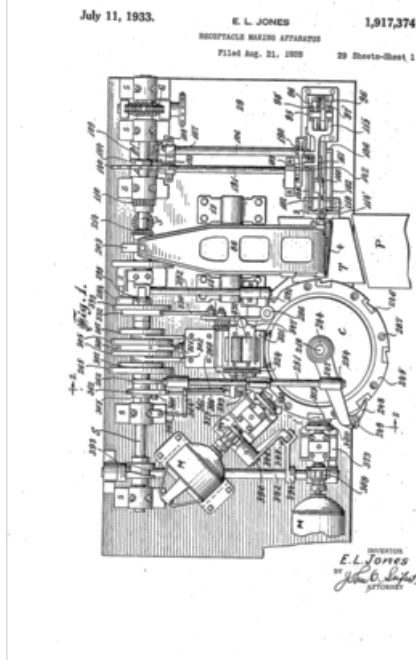
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 B31B17/00 (Core/Invention)

CPC: B31D1/005 B31B50/28 B31B2105/0022

European: B31B1/28 B31B17/00 B31D1/00H1 L31B201/26A
 L31B217/08A

US: 493/106 493/149 493/76

**Family:**

Publication number	Publication date	Application number	Application date
US1917374 A	19330711	US19280301010	19280821

Priority:

US19280301010 19280821

Probable Assignee:

AMERICAN SEALCONE CORP

Assignee(s): (std):

AMERICAN SEALCONE CORP

Inventor(s): (std):

JONES ELLIS L

98) Family number: 18781872 (GB338551A)

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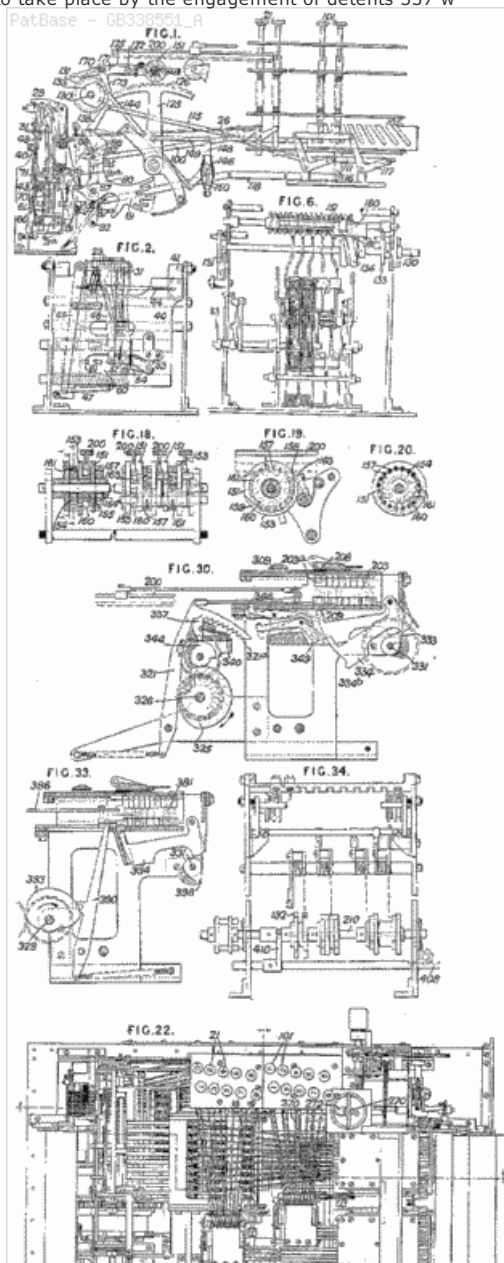
Title: Multiplying - apparatus.- A multiplying-machine has two single banks of keys, one for setting each factor, and a series of.....

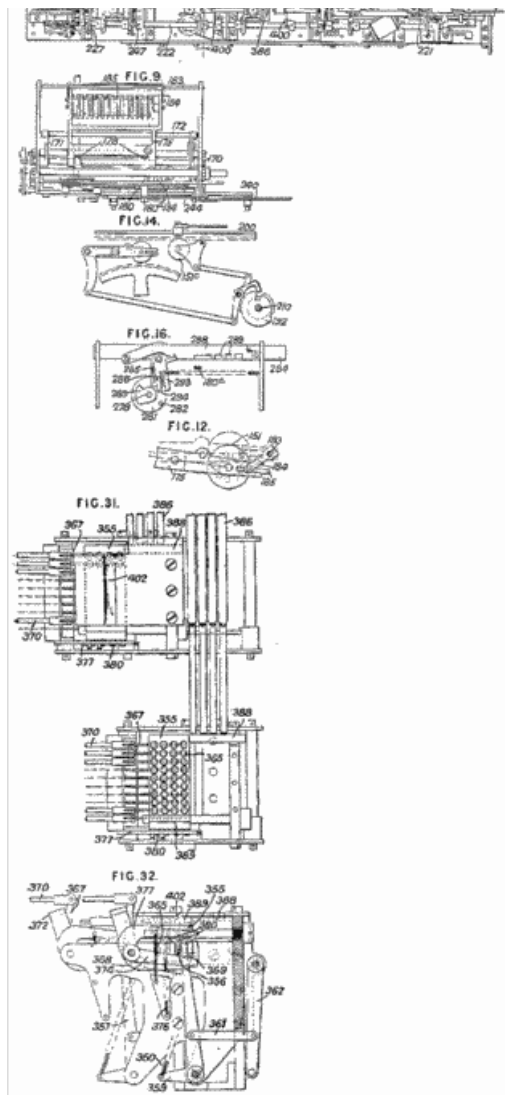
Abstract: 338,551. Debenham, E. R., Rowley, C. D., and Isherwood, H. July 19, 1929. Multiplying - apparatus.- A multiplying-machine has two single banks of keys, one for setting each factor, and a series of rotatable plates bearing representations of partial products. After setting the figures of the first factor, corresponding plates are selected and released, the operation of a key for setting a second factor then positions all the selected plates, whereupon the selected and positioned plates are felt and the partial products transmitted to totalizing mechanism. The release of the plates after the setting of the first factor may be effected by a separate multiplication key or by the depression of any key in the second factor bank. Several sets of selectively operable auxiliary totalizing mechanism may be employed. Transfer and zeroizing mechanism, means for printing the product and the factors and for controlling the printing of zeros are described. The invention is described with reference to a machine having a capacity for factors of four denominations. Entering the first factor. The depression of a key 21, Fig. 1, in the first-factor bank rocks, by means of a link 26, one of a series of cranked levers 29 connected to push rods 31. The lower ends of these rods are bent to form two groups, each containing five rods. A plate 40, Fig. 2, mounted at 41 to swing about a horizontal axis, carries horizontal guides 43, Fig. 1, along which a carriage 60 is urged to move by means of a spring 44 acting through levers 45, 47. The operation of any of the cranked levers 29 causes the depression of a member 48 connected to a lever 51 pivoted to the, swinging plate 40. This lever 51 has a projection 53 lying above the path of a series of teeth 61 secured to the outer side of the carriage 60. A second lever 54 is also pivoted to the swinging plate 40, and lies under the projection 53 of the lever 51. When the member 48 is depressed, the lever 51 swings down and depresses the lever 54 until the edge of the latter is below the adjacent tooth 61, movement of the carriage being prevented by the projection 53. When the member 48 rises, the projection 53 clears the tooth and the carriage moves one step to the right, Fig. 2. Sliding vertically on the carriage are four groups of L-shaped members 70, 71, one group being provided for each denomination and each group consisting of two sets of five members, one set 70 having projections 70 at their upper ends, and the other set 71 having them at their lower ends 71. As each figure in the first factor is entered, one member (70 or 71) in the corresponding group is depressed by the push rod 31 and the carriage is moved one step to the right, Fig. 2. At the end of a complete operation, the rotation of a shaft 222 driven by hand or motor through a shaft 221, Fig. 22, moves a crank-operated link to restore the carriage, and bevelled bars, not shown, restore the members 70, 71 to normal position. Four groups of rotatable plates 80 bearing representations of partial products are provided. Each group contains ten plates, five having tails 87 and five having tails 87. The plates each consist of two portions, one, 82, bearing representations of the tens in the products and the other, 81, of the units. The plates are urged to rotate in a clockwise direction by springs, but five in each group are normally prevented from so doing by detents 91 adjacent the projections 71 of the L-shaped members 71 when the latter are in their active position, the other five being similarly controlled by detents 91. When all the figures of the first factor have been entered, the plate 40 is swung about the pivots 41 either when a multiplication key (not shown) is depressed or when the first figure of the second factor is entered, the corresponding plates 80 then being released by the operation of the projections 70, 71, on the detents 91, 91, and rotating until arrested by a bar 92. In denominations above that of the highest set figure, the "0" plates are released by projections on the carriage 60. The plates 80 are restored to normal positions by the anticlockwise swinging of the bar 92 by means of a crank operated from the shaft 222. Entering the second factor. The depression of a key 101 moves a plate 105 and, by means of a link 100 and lever 95, rocks the bar 92 to move all the selected plates 80 an angular distance corresponding to the value of the key depressed. The plates 80 are retained in this position by the engagement of a pawl 98 with a rack 96. When fully depressed the keys 101 engage a plate 111 carried by levers 112, one of which rocks a lever 116 and, by means of a link 118, swings the plate 40 to release the selected plates 80 as described above. Transmitting partial products to totalizers. The selected and positioned plates 80 are felt by feelers 125 which rotate first in the anticlockwise direction to feel the tens parts of the plates and then in the clockwise direction to feel the units parts. The total clockwise rotation is

transmitted to the main totalizer 151 by racks 126. Each feeler feels the tens of one denomination and the units of the next higher denomination.. The rotation of the feelers is effected by a spring- driven shaft 130, Figs. 1 and 6, which, by escapement mechanism 111, 115, 138 is allowed to rotate once when a key 101 is depressed. The rotation of this shaft 130, by means of a crank 131 and connecting link 144, rocks a shaft 146 to which, each by separate leaf-spring connections 150 and levers 148, 149, are connected the feelers 125. Near the end of its rotation, the shaft 130 causes the tripping of the pawl 98, the selected plates then moving back into contact with the bar 92 to be re-positioned when the second figure of the second factor is entered. The totalizer is carried by a frame 175, Fig. 9, which can slide horizontally along a rocking frame formed by two arms 171 and a rod 172, this second frame being rocked about a shaft 170 by an arm 173 engaging a cam 134 on the shaft 130, the cam engaging a series of teeth 181 on a lever 180 attached to a frame 178 pivoted on the shaft 170 and arranged to move the frame 175. The frame 175 is restored to its normal horizontal position by a cam 227, Fig. 22, on the shaft 222 moving a lever 240, Fig. 9, and so raising a member 244 having a slot in which the end of the lever 180 moves. This raises the teeth 181 clear of the cam 134 and the frame is then returned by the operation of a second cam 247 on the shaft 222 acting on links connected to the carriage. The spring driving the shaft 130 is rewound by the rotation of the shaft 222. Totalizing counters; transfer mechanism.-The totalizer, Figs. 18-20, is arranged for simultaneous actuation and transfer, and each denominational unit comprises a receiving wheel 153, an intermediate wheel 154 and an indicating wheel 151. The intermediate wheel lies between the feed and indicating wheels of the same unit. Each indicating-wheel 151 has a sleeve 155 upon the end of which is eccentrically mounted the intermediate wheel 154 of the next higher denomination. The receiving wheel 153 of the higher denomination is concentrically mounted on this sleeve 155. The receiving wheel has on one side 9 teeth 160 which engage with the feeler racks 126 or with rack bars 200. On its other side are 18 teeth 161 which engage (over a small arc) with the 17 teeth of the eccentrically mounted intermediate wheel 154, and this in turn engages with some of the 20 teeth 157 of the indicating wheel 151. Thus the movement of the receiving wheel 153 is transmitted to the indicating wheel 151, and while the latter wheel makes one rotation, a tenth of this movement is transferred to the next higher indicating wheel by reason of the eccentric mounting of the wheel 154 and the different numbers of teeth on the wheels 151, 153. When not engaged by either the rack bars 200 or the racks 126, the totalizer wheels are locked by the engagement of a plate 185, Fig. 12, with the teeth 160. This plate slides in the sides of the frame 175 and is controlled by a U-shaped member 184 pivoted to a fixed rod 183. Zeroizing-mechanism.-The wheels are zeroized by the sliding of the racks 200, which are moved in succession, commencing with the lowest denomination, by means described below. The wheels are raised into engagement with the racks 200 by means of a cam 192 on the shaft 210, Fig. 14, driven from the shaft 222. Each wheel 151 has a reduced portion 159 ending in a stop 158 which is engaged by a pawl 163 when the wheel is in zero position. These pawls have overlapping arms so that any one pawl prevents the action of the next higher pawl until it has itself moved on to the reduced portion 159 of its own wheel 151. Printing of product. The product and the factors may be printed on two strips of paper, one of which is retained in the machine and the other torn off for vouchers by means of a knifeedged bar 309, Fig. 30. In printing the product, the racks 200 are connected to type carriers 203 so that when they move to the right to zeroize the main totalizer wheels 151, corresponding type is positioned between openings 208, 209. The movement of the racks is effected by levers 321 controlled by cams 325 on a shaft 326 rotated by gearing from the shaft 222, the racks being moved in succession commencing with that of the lowest denomination. The printing is performed by a series of spring-controlled hammers 334 released in succession by cams 333 on a shaft 331 rotated from the shaft 221. Each type carrier is retained in operative position for sufficient time to allow the printing to take place by the engagement of detents 337 w

Classifications:

International (IPC 1-7): G06C15/18





Family:

Publication number	Publication date	Application number	Application date
GB338551 A	00000000		00000000

99) Family number: 18781879 (GB338552A)

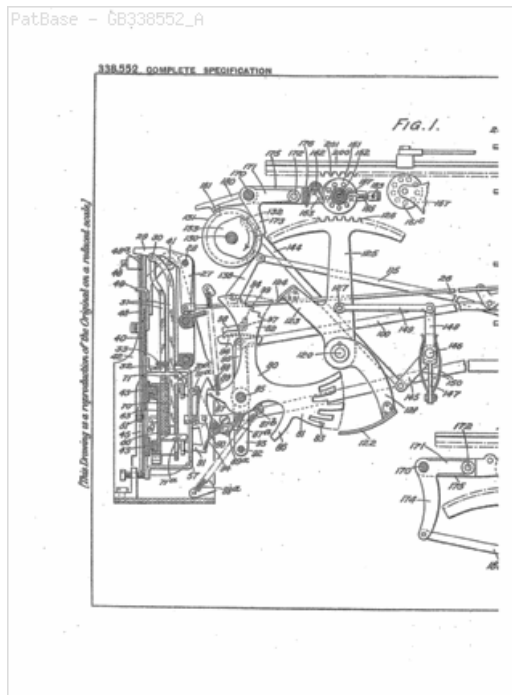
© PatBase

Title: Drawings to Specification. Multiplying-apparatus.-A multiplying-machine of the type employing mechanical representation of.....

Abstract: 338,552. Debenham, E. R., Rowley, C. D., and Isherwood, H. July 19, 1929. Drawings to Specification. Multiplying-apparatus.-A multiplying-machine of the type employing mechanical representation of partial products is provided with means for printing the two factors and the product. The machine has two sets of numeral keys, one for each factor, and the operation of these keys alone or in combination with a separate key which is depressed after the setting of the first factor, serves to bring about the whole multiplication process and the presentation of the product. Members are also set at this time which, upon the subsequent movement of operating means, control the setting up of type, and during this subsequent operating movement, printing is effected and such parts of the mechanism are reset as have not previously been reset automatically. The description is identical with that of Specification 338,551, but the claims are directed to the printing mechanism. Specifications 338,548, 338,549, and 338,550 also are referred to.

Classifications:

International (IPC 1-7): G06C15/18

**Family:**

Publication number	Publication date	Application number	Application date
GB338552 A	00000000		00000000

100) Family number: 20664881 (US4842207A)

© PatBase

Title: DEVICE FOR DETECTING AND MEASURING THE TENSION ON A CABLE

Abstract: A cable reeling system which provides means to control the tension applied to a cable during rereeling including a reel having an axle supported by members mounted upon a first skid which also supports a drive motor for such a reel. The first skid is mounted upon a second, longer, skid to which is coupled by 4 links so as to align the skids adjacent their first ends. A tension gauge is mounted on second skids adjacent to its second end and coupled to the first skid at its second end to measure the actual tension between first and second skid which is related to the tension applied to the cable by the reeling system.

Classifications:

International (IPC 8-9): B65H75/18 E21B10/36 E21B11/02 E21B17/20 E21B19/22 E21B4/14 E21B47/022 E21B47/12 E21B7/04 E21B7/06 E21B7/18 E21B7/26 H02G1/06

H02G1/08 (Advanced/Invention);

B65H75/18 E21B10/36 E21B11/00 E21B17/00 E21B19/00 E21B4/00 E21B47/02 E21B47/12 E21B7/00 E21B7/04 E21B7/18 H02G1/06 H02G1/08 (Core/Invention)

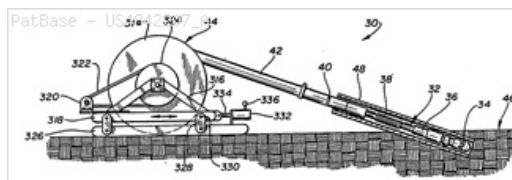
International (IPC 1-7): B65H75/00 B65H75/40 B65H75/42

E21B10/36 E21B11/02 E21B47/022 E21B7/04 E21B7/06 E21B7/20 F16L11/12 H01B7/18

CPC: B65H75/18 H02G1/06 H02G1/08 E21B4/145 E21B7/065 E21B7/18 E21B7/26 E21B17/203 E21B17/206 E21B19/22 E21B47/02224 E21B47/122 E21B7/068

European: B65H75/18 E21B17/20B E21B17/20D E21B19/22 E21B4/14B E21B47/022M2 E21B47/12M E21B7/06F E21B7/06M E21B7/18 E21B7/26 H02G1/06 H02G1/08

US: 174/47 174/70R 175/103 175/19 175/21 175/269 175/295 175/390 175/45 175/61 175/67 175/71 242/390.8 242/390.9 242/403 242/412 242/54R 242/86.5R 254/134.3R

**Family:**

Publication number	Publication date	Application number	Application date
DE0340280 T1	19900816	DE19880909866T	19881027
DK326189 A	19890630	DK19890003261	19890630
DK326189 A0	19890630	DK19890003261	19890630
EP0340280 A1	19891108	EP19880909866	19881027
EP0340280 A4	19921021	EP19880909866	19881027
JP1503398 T2	19891116	JP19880509178T	19881027
KR19897001868 A	19891222	KR19897001254	19881027
US4842207 A	19890627	US19880202007	19880602
US4858703 A	19890822	US19880201199	19880602
US4866214 A	19890912	US19880201468	19880602
US4905773 A	19900306	US19870115987	19871102
US4923134 A	19900508	US19890300942	19890224
US4955439 A	19900911	US19880201198	19880602
WO8904418 A1	19890518	WO1988US03834	19881027

Priority:

US19870115987 19871102 US19880201198 19880602 US19880201468 19880602
 WO1988US03834 19881027 US19890300942 19890224

Probable Assignee: PETTIBONE CORP**Assignee(s):** (std): UNDERGROUND TECHNOLOGIES ; UNDERGROUND TECHNOLOGIES INC**Assignee(s):** UNDERGROUND TECHNOLOGIES POST OFFICE BOX 322 BRENT ; UNDERGROUND TECHNOLOGIES INC

BYRON CALIF US ; UNDERGROUND TECHNOLOGIES A CORP OF DE ; MANUFACTURERS HANOVER TRUST CO ; PETTIBONE CORP

Inventor(s): (std): KINNAN FRANK R

Inventor(s): KINNAN R ; KINNAN R FRANK CAMAS VALLEY OR 97416 US

Designated states: AT BE CH DE DK FR GB IT JP KR LI LU NL SE

101) Family number: 5161898 (US5152162A)

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Title: SYSTEM AND METHOD FOR CRIMPING ARTICLES

Abstract: A crimping system for crimping electrical connectors to cables. The system can automatically sense the size of a connector and can automatically determine a minimum acceptable distance of work travel in relation to the size of a connector. The system can crimp articles and control the movement of an indenter by use of a computer. The system can sense predetermined crimping information and at least partially record crimping information. The system can determine the occurrence of a bad crimp. The system can monitor predetermined characteristics of the crimping system. The system can sense free travel movement of an indenter and determine appropriate work travel movement of the indenter relative to sensed free travel movement. The system can sense free travel movement of an indenter and compare sensed free travel movement to a stored memory of potential free travel movements and connector sizes. The system can have a computer controller for, at least partially controlling a hydraulic drive system. The system can have a diagnostic monitor for use in evaluating both past and present operation of the system. A method of is disclosed for determining indenter work travel movement of crimping apparatus and a method of controlling a system for hydraulically crimping electrical connectors is also disclosed.

Classifications:

International (IPC 8-9): H01R43/042

H01R43/048 (Advanced/Invention);

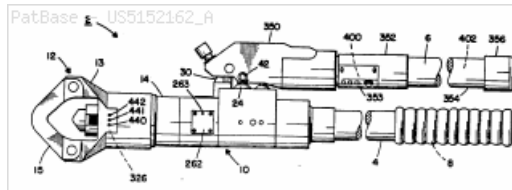
H01R43/04 (Core/Invention)

International (IPC 1-7): B21D7/06

CPC: B30B15/0094 H01R43/0427 H01R43/0486 Y10T29/53065 Y10T29/53087

European: B30B15/00P H01R43/042E H01R43/048F

US: 29/715 29/720 72/16.8 72/20 72/21 72/21.5 72/31 72/453.16



Family:

Publication number	Publication date	Application number	Application date
US5152162 A	19921006	US19900545511	19900627

Priority:

US19900545511 19900627

Probable Assignee: FCI USA INC

Assignee(s): (std): BURNDY CORP

Assignee(s): FCI USA INC ; LOREX IND ; LOREX IND INC ; BURNDY A CORP OF NY CORP

Inventor(s): (std): CHEN EDWARD J ; DELANO HOWARD D ; FERRARO NEIL P ; LEE PATRICK S ; LOGUE RAYMOND ; NAGER JR URS F

102) Family number: 30655900 (US2006110224A)

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Title: SOIL DRAINAGE SYSTEM

Abstract: System for withdrawing liquid, in particular water, from a soil area, such as for consolidating it, comprising a series of spaced apart draining means extending downwardly, in particular substantially vertically, in the soil and a substantially horizontally extending drainage line, which is arranged in the soil for receipt of the soil fluid passed through the downwardly extending drainage means and which in a transitional area in a border area of the soil area to be treated, such as to be consolidated, changes into a pump line which leads to a pump positioned outside of the oil area to be treated, an oversize of line length being provided in the transitional area prior to making the system operational.

Classifications:

International (IPC 8-9): C09K17/00 E02B11/02 E02D3/00

E02D3/10 (Advanced/Invention);

E02D3/10 (Advanced/Non-invention);

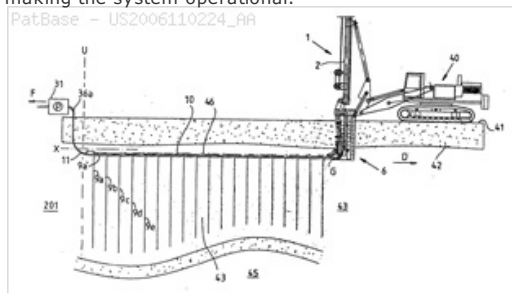
C09K17/00 E02B11/00 E02D3/00 (Core/Invention)

International (IPC 1-7): E02B11/02 E02D3/10

CPC: E02D3/10

European: E02D3/10

US: 405/258.1 405/258.100S 405/271 405/271S 405/302.4 405/302.400P



Family:

Publication number	Publication date	Application number	Application date
AU2003285834 AA	20040623	AU20030285834	20031205
EP1567725 A1	20050831	EP20030779057	20031205
JP2006509129 T2	20060316	JP20040556994T	20031205
KR20050086902 A	20050830	KR20057010285	20031205
NL1022086 C2	20040622	NL20021022086	20021205
US2006110224 AA	20060525	US20030537759	20031205
WO04051005 A1	20040617	WO2003NL00864	20031205

Priority:

NL20021022086 20021205 WO2003NL00864 20031205

Probable Assignee: BOSKALIS BAGGERMAATSCHAPPIJ BV

Assignee(s): (std): BODEGOM DIRK A ; BODEGOM DIRK ALBERTUS ; BOS AND KALIS BAGGERMAATSCH ; BOSKALIS

BAGGERMAATSCHAPPIJ BV

Assignee(s): BAGGERMAATSCHAPPIJ BOSKALIS B V ; BAGGERMAATSCHAPPIJ BOSKALIS BV

Inventor(s): (std): BODEGOM DIRK A ; BODEGOM DIRK ALBERTUS ; DIRK ALBERTUS BODEGOM

Inventor(s): BODEGOM DIRK

Agent(s): GARVEY SMITH NEHRBASS AND NORTH LLC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

103) Family number: 2189924 (US4741941A)

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Title: NONWOVEN WEB WITH PROJECTIONS

Abstract: Nonwoven web and method of making including interbonded thermoplastic fibers in an array of hollow projections extending outwardly from at least one surface of said web. The projections are separated by land areas of interbonded fibers, and the fiber orientation is greater in the projections than in the land areas. Either the projections or the land areas may be perforated as desired for controlled porosity and fluid flow properties. The nonwoven webs of the invention may be made by a number of processes but, preferably, are made by forming directly on a surface with corresponding projections with or without apertures and a vacuum assist or by forming on an apertured surface with a pressure differential sufficient to draw the fibers through the apertures forming the projections. The disclosure includes such webs with added fiber layers and as components of a wide variety of products including personal care items such as liners for sanitary napkins, household products such as cleaning materials and wipers, in the service product area such as towels, washcloths and bathmats, in the marine and automotive area as scrubbing and protective applicators, and in the hospital and veterinary areas as wipes and dispensing cloths. The method and apparatus disclosed may be varied as to steps and configuration to impart desired web constructions and properties, and preferred embodiments are disclosed.

Classifications:

International (IPC 8-9): A47L13/16 A61F13/00 A61F13/15

D01G25/00 D04H1/54 D04H1/56 D04H1/70 D04H3/00

D04H3/16 (Advanced/Invention);

A47L13/16 A61F13/15 D01G25/00 D04H1/56 D04H1/70

D04H3/16 (Core/Invention)

International (IPC 1-7): A61F13/00 A61F13/16 B32B3/10 D04H1/46

D04H1/54 D04H1/56 D04H1/74 D04H3/00 D04H3/10 D04H5/08

CPC: Y10T156/1056 Y10T156/1085 Y10T428/233 Y10T428/239

Y10T428/24116 Y10T428/24124 A61F13/512 A47L13/16 A61F13/514

A61F2013/15048 A61F2013/15821 A61F2013/51078

A61F2013/530131 D01G25/00 D04H3/16 D04H1/56 D04H1/74

A61F13/51104 A61F13/51121

European: A47L13/16 A61F13/512 A61F13/514 D01G25/00

D04H1/56B D04H1/70 D04H3/16 K61F13/15A11 K61F13/15M11

K61F13/513G5 K61F13/51P K61F13/53M

US: 128/132R 128/156 15/209.1 15/209B 15/209R 15/215 15/217

15/223 15/229.11 156/176 156/178 156/181 156/252 156/270

156/279 19/296 19/301 19/302 428/112 428/113 428/131 428/135

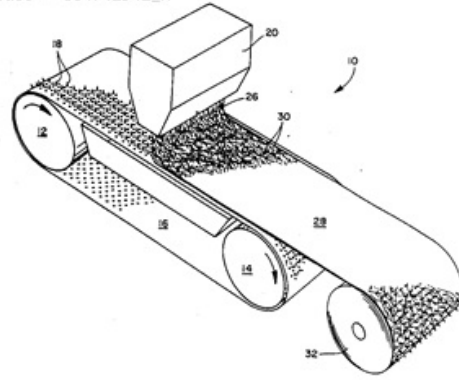
428/138 428/141 428/160 428/171 428/172 428/179 428/180

428/283 428/286 428/287 428/319.7 428/71 428/76 428/903 428/913

602/45 602/76 604/367 604/376 604/380 604/382

604/384 604/385R

PatBase - US4741941_A



Family:

Publication number	Publication date	Application number	Application date
AU198664645 A1	19870507	AU19860064645	19861103
AU584470 B2	19890525	AU19860064645	19861103
CA1314388 A1	19930316	CA19860520713	19861017
GB2182685 A1	19870520	GB19860026247	19861103
GB2182685 B2	19891011	GB19860026247	19861103
GB8626247 A0	19861203	GB19860026247	19861103
KR19870005137 A	19870604	KR19860009246	19861103
KR930010348 B1	19931016	KR19860009246	19861103
MX162781 A	19910626	MX19860004104	19861021
US4741941 A	19880503	US19850794915	19851104

Priority:

US19850794915 19851104

US19850798915 19851104

CA19860520713 19861017

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): KIMBERLY CLARK CO

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Inventor(s): ANN L WAGNER ; NANETTE J LOGSDON ; STEPHEN M ENGLEBERT ; STEPHEN MARVIN ENGLEBERT ; GREGORY S HAFFER

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; BORDEN LADNER GERVAIS LLP

104) Family number: 3062932 (US5195042A)

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Title: APPARATUS AND METHOD FOR CONTROLLING CRIMPING OF ARTICLES

Abstract: A crimping apparatus and method for crimping electrical connectors to cables. The apparatus can automatically sense the size of a connector and can automatically determine a minimum acceptable distance of work travel in relation to the size of a connector. The apparatus can crimp articles and control the movement of an indenter by use of a computer. The apparatus can sense predetermined crimping information and at least partially record crimping information. The apparatus

can determine the occurrence of a bad crimp. The apparatus can monitor predetermined characteristics of the crimper. The apparatus can sense free travel movement of an indenter and determine appropriate work travel movement of the indenter relative to sensed free travel movement. The apparatus can sense free travel movement of an indenter and compare sensed free travel movement to a stored memory of potential free travel movements and connector sizes. The apparatus can have a computer controller for, at least partially controlling a hydraulic drive system. The apparatus can have a diagnostic monitor for use in evaluating both past and present operation of the system. An apparatus is disclosed for determining indenter work travel movement of crimping apparatus and a method of controlling a system for hydraulically crimping electrical connectors is also disclosed.

Classifications:

International (IPC 8-9): H01R43/042

H01R43/048 (Advanced/Invention);

H01R43/04 (Core/Invention)

International (IPC 1-7): G06F15/46 H01R43/04 H01R43/042

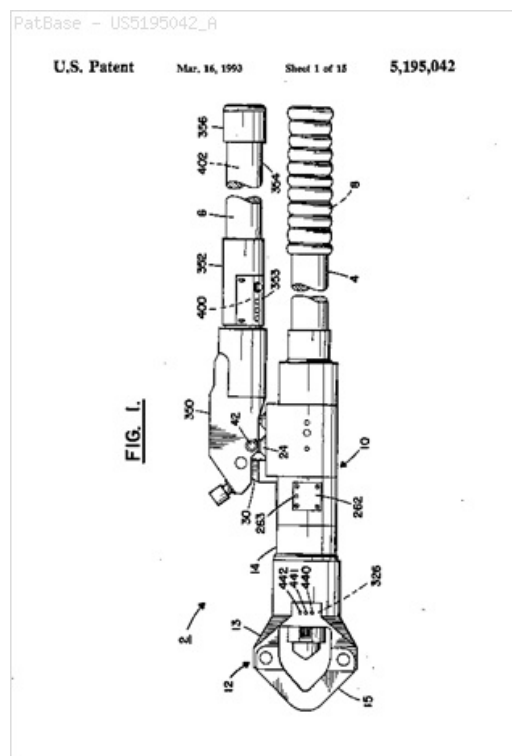
H01R43/048 H01R43/4 H01R43/42

CPC: Y10T29/49185 Y10T29/53235 H01R43/0427

European: H01R43/042E

US: 140/105 29/753 29/863 364/412 364/468 364/476 700/117

72/10 72/18.6 72/18.9 72/19.9



Family:

Publication number	Publication date	Application number	Application date
CA2045837 AA	19911228	CA19912045837	19910627
CA2045837 C	20010417	CA19912045837	19910627
DE69121797 D1	19961010	DE19916021797	19910617
DE69121797 T2	19970109	DE19916021797T	19910617
EP0463530 A2	19920102	EP19910109884	19910617
EP0463530 A3	19920325	EP19910109884	19910617
EP0463530 B1	19960904	EP19910109884	19910617
ES2092528 T3	19961201	ES19910109884T	19910617
JP3136171 B2	20010219	JP19910156879	19910627
JP5101864 A2	19930423	JP19910156879	19910627
US5195042 A	19930316	US19900545484	19900627

Priority:

US19900545484 19900627 CA19912045837 19910627

Probable Assignee: FCI USA INC

Assignee(s): (std): FRAMATOME CONNECTORS USA INC ; BURNDY CORP

Assignee(s): CHEN EDWARD J ; DELANO HOWARD D ; FCI USA INC ; BURNDY A CORP OF NY CORP ; LOREX IND ; FRAMATOME CONNECTORS USA INC NORWALK CONN US ; NAGER URS F JR ; FERRARO NEIL P ; LEE PATRICK S ; LOGUE RAYMOND C ; LOREX IND INC

Inventor(s): (std): CHEN EDWARD J ; DELANO HOWARD D ; FERRARO NEIL P ; LEE PATRICK S ; LOGUE RAYMOND C ; NAGER URS F ; NAGER URS F JR ; UUSU EFU NEIGAA ; REIMONDO SHII ROOGU ; PATORITSUKU ESU RII ; NIIRU PII FUERARO ; HAWAADO DEII DERANO ; EDOWAADO JIEI CHIEN ; NAGER JR URS F

Inventor(s): NAGER URS F HUDSON NEW HAMPSHIRE 03051 US ; LOGUE RAYMOND C SOMERS NEW YORK 10589 US ; LEE PATRICK S POUGHKEEPSIE NEW YORK 12603 US ; FERRARO NEIL P MERRIMACK NEW HAMPSHIRE 03054 US ; DELANO HOWARD D KINGSTON NEW YORK 12401 US ; CHEN EDWARD J MT LAUREL NJ 08054 US

Agent(s): BROUILLETTE KOSIE PRINCE

Designated states: BE CH DE ES FR GB IT LI NL SE

105) Family number: 22763939 (US3044722A)

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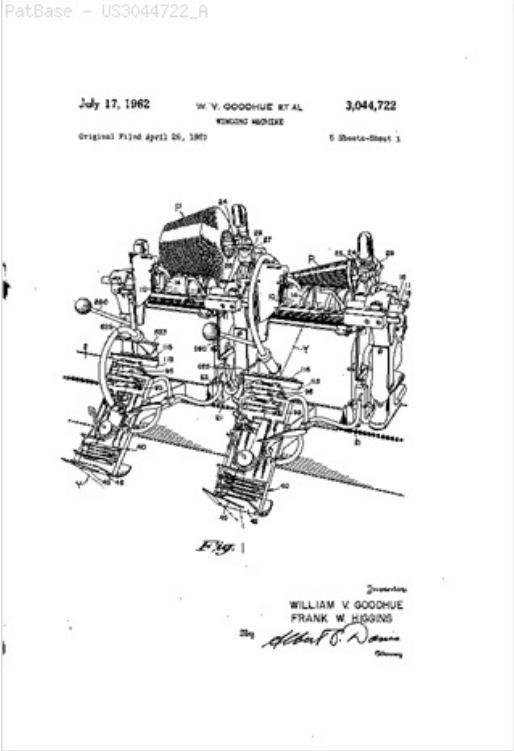
Title: Winding machine

Abstract: 704,931. Winding yarn. UNIVERSAL WINDING CO. April 18, 1952 [April 26, 1951]. No. 9853/52. Class 120(2) A winding machine comprises means for supporting a package for rotation, means for winding yarn on the package, endfinding means for retrieving the loose end of yarn from the package, separate endfinding means for retrieving the end of the supply yarn, a knot-tier, means for applying both said yarn ends to the knottier, and means for operating the tier to unite the ends. The package P, being wound, is driven by surface contact with a traverse roll 10 on a shaft 11 rotated from a shaft 5 driven by an electric motor, the package being wound upon a tube C supported by a holder 24 on an arm 26, 27 rotatably carried in bearings 28. The main yarn y from supply, passes through a guide, slot 43 in a plate 42, then under elbowed fingers 61, through a guide 65, and thence between weighted discs 70 to slub catchers 95. It then passes under a guide plate 115, over the detector lever 625, under the guide 116, over the bail 415 and roll 10 to be taken up by the package P. A spare yarn y'

from another source of supply, is positioned on the shoulder 46 of the plate 42, across a lever 55 and thence to a transferring lever 120, to which it is held under tension by a spring-arm 121. The machine is started initially by depressing the lever 590 which rocks the shaft 592 to move a "sizing-lever" 595 on a rockshaft 435 to free a ratchet wheel 505 so that a gear 455 on a shaft 453 may free the rack bar 451 to descend and move the package-carrying arm 26, 27 to bring the tube C into contact with the roll 10, when a claw 521 is removed from a depression 518 in a disc 515 on the shaft 453 so that a snubbing-lever 572 withdraws a brake 570 from the disc 515, which brake during winding, prevents bouncing of the package P by braking its supporting mechanism. As winding begins, the lever 590 is released and the brake 570 is applied to the surface of the disc 515, to snub the package P, and a pawl 550, which prevents the rack 451 from moving downwards, during winding, is brought into contact with the ratchet-wheel 505. During winding, the control elements are maintained in their operative positions by a spring- urged detent lever 616 latched by a spring- urged lever 605 (not shown). When the yarn y breaks or fails, the lever 625 falls and rocks the shaft 620 to swing a yoke 635 and bring an arm 690 into a position to be engaged by one of the pins 695 on a constantly-driven member 478 to move a locking lever 685 from a shouldered disc 670 and permit 'the main-control cam shaft 475 to rotate. A cam 365 thereon, through a lever 367, then moves the package P on to a rest 360, to stop its rotation, and then swings it further, and into contact with a reversing roll 15. At the same time the lever 572 is moved to release the snubbing brake 570. by contact of a pin 581 with a lever 580 so that slight movement of the rack bar 451 may take place. A cam 310 on the shaft 475 also rocks a shaft 240 to cause a pin 245 (not shown) to slide open the cover 210 of a suction chamber 185 and an air-suction valve 190 is opened by a cam 205 to connect the chamber 185 with a source of suction to retrieve the yarn end from the package P. To assist in this process, a beater 370, driven by the roll 15 and controlled by the shaft 240, comes into operation to oscillate and wipe against the package to free the yarn end therefrom, the yarn end being prevented from wrapping the roll 10 by a brush 410. The yarn end retrieved from the package and lying in the suction chamber 185 is removed therefrom by an ejector 250 normally positioned with its beak 257 lying across the bottom of the chamber 185. The beak lifts the yarn end in loop-form and transfers it to a knotter 330 when the arm of the ejector is rotated by a rackbar 295 moved by linkage from the cam 310 on the shaft 475. The yarn loop is retained on the extension 256 of the ejector by cam-operated projection 265 which is withdrawn as the yarn is presented to the bill of the knotter 330, whereafter the ejector is -returned to a vertical position. The suction nozzle 155 (for the broken or spare yarn) the end being normally covered by a cap 181 having a finger 180, is now swung by gears 171, 172, operated by a cam 179 on the shaft 475, to take the broken yarn from the tension assembly. The finger 180 contacts a member 150 which is depressed and opens the cap 181 so that suction will draw the end of yarn extending to the slub catchers 95 into the nozzle 155, the slub catchers 95 being opened to release the yarn by blades on a shaft rocked by the nozzle, which shaft also opens the tension discs 70. The cap 181 now closes on the thread and the nozzle 155 is moved to carry the retrieved end to the knotter 330. While the tension discs 70 were open, compressed air from a pipe 82 and, at the same time, air from a pipe 88, is projected to clean both discs and slub catchers of lint and c., the supply of air being governed automatically by a valve 92 opened by a lever 433 from the rock shaft 435. The nozzle 155 swings beyond the knotter, to maintain yarn tension during tying, and the knotter is then operated by the lever 335 and link 334 operated by a cam 350 on the shaft 475. The nozzle 155 is then swung back and the cap 181 opened by a member 355 on the casing 296 to suck away one severed waste end of the knot through the nozzle 155, the other end waste end passing into the chamber 185. If the yarn y supply becomes exhausted, the detector fingers 61 swing to release latching means for the transforming lever 120 to enable the spare yarn y' to be fed into the guide slot 43 of the plate 42 when the nozzle 155 swings toward the centre of the tension-assembly. The yarn end y<SP>1</SP> is then taken up by the nozzle 155 and drawn laterally to thread it between the tension discs 70 and taken to the knotter 330, the movement of the nozzle 155 from the tensioning device resetting the spare-yarn transfer apparatus. If the knotting operation is not successfully accomplished, the latching lever 605 (not shown) is rocked by a cam 645 to bring a detent pin into contact with a second step on the lever 605 so that the end-finding and knot-tying mechanisms repeat their former operations. If the knotting is successful during the first or second attempt, the relevant mechanisms are re-cocked to their initialrelationships, but if knotting is not so achieved, the latching lever 605 (not shown) is completely released from its detent so that the shaft 524 is rocked to lift the package P off its roll 10 and arrest the winding operation. The winding unit is then manually attended and upon correction of the fault the lever 590 is depressed to start the machine afresh. When the package has reached a predetermined size, the claw 521 on a lever 520 will fall into the recess 518 on the disc 515 to rock the shaft 435 and the lever 595. The shaft 524 is then rocked and the rack 451 moved to lift, the package P from the roll 10. In order that size-adjustment of packages may be effected, the position of the lever 450 may be adjusted angularly in regard to the arm 26, 27 by means of an adjustable connection at the bearing 28. Specification 600,565 is referred to.

Classifications:

International (IPC 8-9): B65H54/14 B65H54/22 B65H63/08 B65H67/08 (Advanced/Invention); B65H54/02 B65H67/00 (Core/Invention)
International (IPC 1-7): B65D85/18 B65H54/14 B65H54/22 B65H63/06 B65H67/08
CPC: B65H54/22 B65H67/081 B65H2301/531 B65H2701/31 B65H63/082 B65H54/14
European: B65H54/14 B65H54/22 B65H63/08B B65H67/08B L65H301/531 L65H353/100 L65H701/31
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Priority: US19510223022 19510426 US19560581145 19560427 US19590859083 19591113
Probable Assignee: LEESONA CORP
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Inventor(s): (std): WINDING COMPANY UNIVERSAL ; HIGGINS FRANK W ; GOODHUE WILLIAM V ; WINDING CO UNIVERSAL
Inventor(s): COMPANY UNIVERSAL WINDING ; UNIVERSAL WINDING CO

106) Family number: 42974940 (US2009057169A)

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Title: SPINDLE AND SPINDLE ATTACHMENTS FOR CORELESS AND FLEXIBLE CORE ROLLED TISSUE PRODUCTS

Abstract: Spindles attachments and replacement spindles for use with a coreless tissue roll or a flexible core rolled tissue product are generally disclosed. In one embodiment, a spindle attachment having an elongated tube is generally disclosed. Each end portion of the spindle attachment is tapered at an angle of less than 45 degrees. The elongated tube defines a circular opening that extends through the center of the elongated tube. In another embodiment, an armed spindle for use in place of a traditional spindle is generally disclosed. The armed spindle includes a pair of opposing pegs connected to at least 4 arms. Each arm has a pair of end portions that extend away from the center axis of the armed spindle to a middle portion. Also, a kit is disclosed that includes both a spindle attachment or an armed spindle and at least one rolled tissue product.

Classifications:

International (IPC 8-9): A47K10/38 A47K10/40 B65D71/00

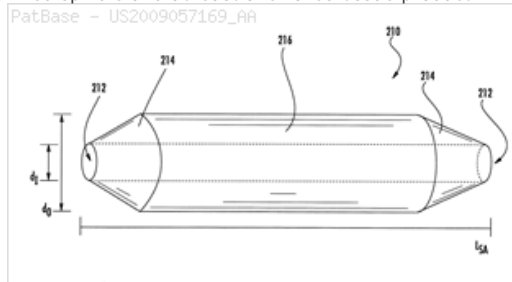
B65H16/06 B65H16/08 (Advanced/Invention);

A47K10/24 B65D71/00 B65H16/00 (Core/Invention)

CPC: A47K10/40 A47K2010/3206

European: A47K10/40 K47K10/32B

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Family:

Publication number	Publication date	Application number	Application date
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Priority:

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Agent(s): DAVIES CHRISTOPHER ROBERT; DORITY AND MANNING PA; MARSHALL ALAN R

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

107) Family number: 34576949 (US2007137808A)

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Title: TREATED TISSUE PRODUCTS HAVING INCREASED STRENGTH

Abstract: Tissue products are disclosed containing an additive composition. The additive composition, for instance, comprises an aqueous dispersion containing an olefin polymer, an ethylene-carboxylic acid copolymer, or mixtures thereof. The olefin polymer may comprise an interpolymers of ethylene and octene, while the ethylene-carboxylic acid copolymer may comprise ethylene-acrylic acid copolymer. The additive composition may also contain a dispersing agent, such as a fatty acid. The additive composition may be incorporated into the tissue web by being combined with the fibers that are used to form the web. Alternatively, the additive composition may be topically applied to the web after the web has been formed. For instance, in one embodiment, the additive composition may be applied to the web as a creping adhesive during a creping operation. The additive composition may improve the strength of the tissue web without substantially affecting the perceived softness of the web in an adverse manner.

Classifications:

International (IPC 8-9): D21H21/14 A45D33/38 A47K10/00 A47K10/02 A47K10/16 A47L13/16 A61F13/15 A61K8/02 A61K8/81 A61Q19/00 B05D5/00 B05D7/04 B31F1/07 B31F1/12 B31F1/16 B32B29/00 B32B29/04 B32B5/22 C09J123/08 C09J131/04 C09J133/02 C11D17/04 C11D7/04 D04H1/54 D21F11/00 D21F11/14 D21H11/00 D21H13/00 D21H17/00 D21H17/20 D21H17/33 D21H17/34 D21H17/35 D21H17/37 D21H17/43 D21H19/00 D21H19/20 D21H19/22 D21H19/66 D21H21/18 D21H21/20 D21H21/22 D21H21/24 D21H23/00 D21H23/22 D21H23/50 D21H23/52 D21H23/56 D21H23/76 D21H25/00 D21H27/00 D21H27/02 D21H27/30 D21H27/40 (Advanced/Invention); D21H17/34 D21H17/37 D21H19/20 D21H27/02 (Advanced/Non-invention); A47K10/00 A47L13/16 B31F1/00 B32B5/22 C08L C11D C11D17/04 C22C D04H1/54 D21H11/00 D21H13/00 D21H17/00 D21H19/00 D21H21/14 D21H21/22 D21H23/00 D21H25/00 D21H27/00 D21H27/02 D21H27/30 (Core/Invention); C11D17/04 D21H17/00 D21H19/00 D21H21/18 D21H27/02 (Core/Non-invention);

C11D D21H (Subclass/Invention)

International (IPC 1-7): A47K10/16 B31F1/12 C08L C11D
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D21H27/30

CPC: D21H21/20 D21H23/50 D21H27/02 B31F1/07 B31F2201/0733
B31F2201/0784 B31F2201/0787 D21H17/34 C11D17/041 D21H13/10
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D21H17/35 D21H27/001 D21H27/005 D21H27/00 D21H19/22
D21H21/22 B32B29/005 B32B2317/12 B32B2432/00 A47K10/16
B32B5/22 D21H17/37 D21H19/20 D21H21/146 D21H21/18
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European: A47K10/16 A47L13/17 A61K8/02C A61K8/81C2
A61K8/81K2 A61Q19/00 B31F1/07 B32B5/22 C11D17/04B
C11D17/04F C11D3/37C2 C11D3/37C6 D21F11/14 D21F11/14B
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N21H27/00B N21H27/00D N21H27/00D4 N21H27/02 N21H27/30

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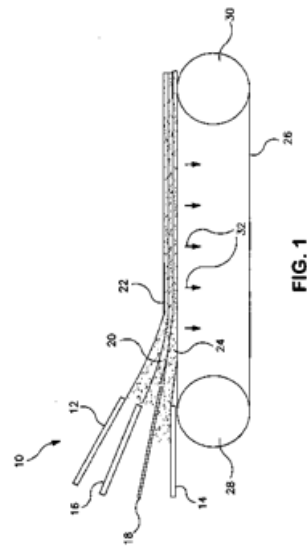


FIG. 1

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Priority:

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EP20080770593	20080610	WO2008US66427	20080610	EP20080770633	20080611
EP20080770622	20080611	EP20080770630	20080611	WO2008US66471	20080611
WO2008US66463	20080611	WO2008US66474	20080611	US20110017807	20110131

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Inventor(s): (std): BAKER JERRY W ; BRENT FETNER CHRISTOPHER ; BUCKLEY GREGOR ROBERT ; CHRISTOPHER B FETNER ; CHRISTOPHER BRENT FETNER ; CLOUGH PERRY ; CLOUGH PERRY H ; DAJER TOMAS DZHOZE ; DEBORAH J NICKEL ; DEBORAH JOY NICKEL ; DEBORAH NICKEL ; DYER THOMAS ; DYER THOMAS J ; DYER THOMAS JOSEPH ; FETNER CHRISTOPHER ; FETNER CHRISTOPHER B ; FETNER CHRISTOPHER BRENT ; GOULET MIKE ; GOULET MIKE T ; H CLOUGH PERRY ; H PERRY CLOUGH ; JEFFREY J TIMM ; JOHN ZWICK KENNETH ; JOLIET MICKEY T ; JOSEPH DYER THOMAS ; JOY NICKEL DEBORAH ; KENNETH J ZWICK ; GULE MAJL T ; KENNETH JOHN ZWICK ; KLAF PERRI KH ; KLOF PERRI KH ; LOSTOCCO MICHAEL ; LOSTOCCO MICHAEL R ; LOSTOCCO MAJL R ; MICHAEL J REKOSKE ; MICHAEL R LOSTOCCO ; MIKE GOULET ; MIKE T GOULET ; MONASTERY THOMAS JOSEPH ; NICKEL DEBORAH JOY ; NICKEL DEBORAH ; MICHAEL JOHN REKOSKE ; NICKEL DEBORAH J ; NICKEL DEBORAH JOY ; NIKEL DEBORAH DZHOJ ; NIKHIL DEBORAH JOY ; NICKEL DEBORAH ; PERRY H CLOUGH ; RAVAL MANISH ; RAVAL MANISH DILIP ; REKOSKE MICHAEL J ; REKOSKE MAJL DZH ; OSTOKO MICHAEL R TO ; REKOSKE MICHAEL ; REKOSKE MICHAEL J ; REKOSKE MICHAEL JOHN ; RIKOSKI MAJL DZH ; RUNGE TROY ; RUNGE TROY M ; RIOSKI MICHAEL J ; RUNGE TROY M ; RUNGE TROY MOTHER ; SHANNON THOMAS G ; SHANNON THOMAS GERARD ; SMITH MEGAN CHRISTINE HANSEN ; THOMAS JOSEPH DYER ; THOMAS JOSEPH DYER DEBORAH JOY ; THOMAS J DYER ; THOMAS JOSEPH DYER MICHAEL R L ; THOMASCHEFSKY CRAIG FARRELL ; THOMASCHEFSKY CRAIG FARRELL ; TIM JEFFREY J ; TIMM DZHEFFRI DZH ; TIMM JEFFREY ; TIMM JEFFREY J ; TROY M RUNGE ; TSVIK KENNETH DZHON ; VITNIR CHRISTOPHER BRENT ; ZWICK KENNETH ; ZWICK KENNETH J ; TSVIK KENNETH DZH ; ZWICK KENNETH JOHN

Inventor(s): ZWICK KENNETH JOHN NEENAH ; ZWICK KENNETH NEENAH ; ZWICK KENNETH J AND ; ZWICK KENNETH J NEENAH ; TROY MRUNGE ; TROY RUNGE ; TIMM JEFFREY J AND ; TIMM JEFFREY J MENASHA ; TIMM JEFFREY MENASHA ; THOMAS JOSEPH DYER MICHAEL R LOSTOCCO DEBORAH JOY NICKEL TROY M RUNGE KENNETH JOHN ZWICK MIKE T GOULET JEFFREY ; THOMAS JOSEPH DYER MICHAEL R LOSTOCCO DEBORAH... ; THOMAS JOSEPH DYER DEBORAH JOY NICKEL KENNETH JOHN ZWICK MIKE T GOULET JEFFREY J TIMM PERRY H CLOUGH ; THOMAS JOSEPH DYER DEBORAH JOY NICKEL KENNETH JOHN ZWICK MIKE T GOULET JEFFREY J TIMM PERRY H CLUGH ; THOMAS DYER ; RUNGE TROY NEENAH ; SHANNON THOMAS ; RUNGE TROY M AND ; RUNGE TROY M NEENAH ; REKOSKE MICHAEL J APPLETON ; REKOSKE MICHAEL APPLETON ; PERRY CLOUGH ; PERRY H CLUGH ; NIKKEL' DEBORAH ; NIKEL' DEBORAH DZHOJ ; NICKEL DEBORAH JOY APPLETON ; MICHAEL LOSTOCCO ; NICKEL DEBORAH APPLETON ; MICHAEL REKOSKE ; MICHAEL R LOSTOCCO ; LOSTOCCO MICHAEL R APPLETON ; LOSTOCCO MICHAEL APPLETON ; KENNETH ZWICK ; JEFFREY TIMM ; H CLOUGH PERRY ; JEFFREY J TIMM ; JEFFREY ; GOULET MIKE T NEENAH ; GOULET MIKE NEENAH ; FETNER CHRISTOPHER NEENAH ; DYER THOMAS JOSEPH NEENAH ; DYER THOMAS NEENAH ; DYER THOMAS ; DEBORAH NICKEL THOMAS JOSEPH DYER MICHAEL R LOSTOCCO TROY M RUNGE ; CLOUGH PERRY H NEENAH ; CLOUGH PERRY NEENAH ; BAKER JERRY

Agent(s): FREEHILLS PATENT ATTORNEY S ; SPRUSON AND FERGUSON ; FREEHILLS PATENT AND TRADE MARK ATTORNEYS ; FREEHILLS PATENT ATTORNEYS ; HERBERT SMITH FREEHILLS ; BORDEN LADNER GERVAIS LLP ; PORZIO ; ZIMMERMANN AND PARTNER PATENTANWALTE MBB ; DEHNS ; MURGITROYD AND CO ; ZIMMERMANN AND PARTNER ; BEACHAM ANNABEL ROSE ; DAVIES CHRISTOPHER ROBERT ; BOEHM BRIGITTE ; BOULT WADE TENNANT LLP ; DURAN LUIS ALFONSO ; DE ELZABURU ALBERTO ; ZEHRA YILDIRIM ; DORITY AND MANNING PA ; THE DOW CHEMICAL COMPANY ; DOW CHEMICAL CO ; DORITY AND MANNING P A ; CASSIDY TIMOTHY A ; ASHBURG RAY

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

108) Family number: 22078949 (US2741956A)

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Title: MACHINES FOR MAKING BAGS, ENVELOPES OR SIMILAR CONTAINERS

Abstract: (Claim 1) 1. A bag-making machine including, a frame, an elongate forming mandrel carried by said frame, means for feeding an elongate continuous strip of sheet h,-at-sealable bag material longitudinally of said mandrel, folder means infolding the opposite edge portions of said sheet of ba.material around said mandrel to overlap centrally, a rotatable heatsealing member engaging the overlapped edges of the sheet of bag material for sealing the same longitudinally to form an elongate continuous tubular strip, a pair of spaced shafts geared to rotate together in opposite directions and between

which the strip of tubular bag material is fed, complementary heating and cutter bars carried by each shaft and rotatable with said shafts and into juxtaposition beyond the end of the mandrel to press and heat-seal a transverse seal across the tubular strip, complementary cutter members carried by the shafts and engageable beyond the end of the mandrel as the shaft is rotated to sever the strip of tubular bag material at a point immediately to the rear of the transverse seal, a reciprocating opener member movable longitudinally of the mandrel in timed relation to the heating and cutting bars and projectable outwardly through the severed end of the tubular bag material for opening the severed end of the tubular material after the bag section has been cut therefrom and prior to the formation of a subsequent transverse seal, and a timing mechanism operatively connecting the reciprocating opener member with one of the shafts for timing the movement of the opener member with respect to rotation of the heating and cutter bars carried by said shafts, said timing mechanism moving said opener to assure opening of the severed end of the tubular bag material while the strip of tubular bag material is moving and between sealing and cutting operations.

Classifications:

International (IPC 8-9): B31B23/00 (Advanced/Invention); B31B23/00 (Core/Invention)

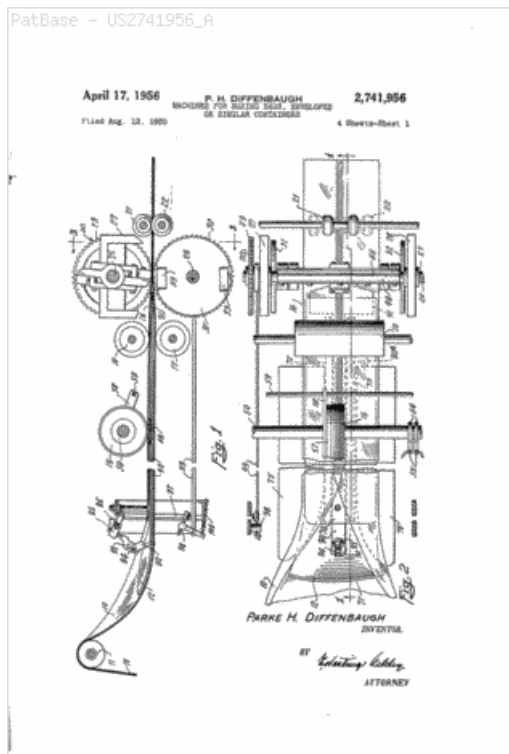
International (IPC 1-7): B31B37/60

CPC: B31B70/00 B31B70/266 B31B70/36 B31B2155/00

B31B2155/0012 B31B2160/10

European: B31B19/36 B31B23/00 L31B219/26B L31B219/26L1 L31B237/10 L31B237/40A

US: 493/197 493/208 493/243 493/248



Family:

Publication number	Publication date	Application number	Application date
US2741956 A	19560417	US19500179036	19500812

Priority:

US19500179036 19500812

Probable Assignee: FRANK HAMACHEK MACHINE CO

Assignee(s): (std): FRANK HAMACHEK MACHINE CO ; FRANK HAMACHEK MACHINE COMPANY

Inventor(s): (std): DIFFENBAUGH PARKE H

109) Family number: 9109964 (US5472147A)

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Title: Comminuting machine with comminution grates

Abstract: The comminuting machine includes a housing provided with a rotary impact mechanism. A conveyor conveys infed material to the rotary impact mechanism which cooperates with an impact plate in disintegrating the infed material. A first comminuting grate follows the impact plate in the rotary direction and is arranged laterally of the rotary impact mechanism. A second comminuting grate is arranged below the first. Both comminuting grates constitute arcuate plates with throughpass openings and cooperate with the rotary impact mechanism in forcing the infed material through grate openings with further comminution. Adjusting devices are associated with the comminuting grates for adjusting the same relative to the rotary impact mechanism.

Classifications:

International (IPC 8-9): B02C13/00 B02C13/09

B02C13/284 (Advanced/Invention);

B02C13/00 (Core/Invention)

International (IPC 1-7): B02C13/00 B02C13/04 B02C13/09

B02C13/26 B02C13/282 B02C13/284 B02C13/286 B02C13/30

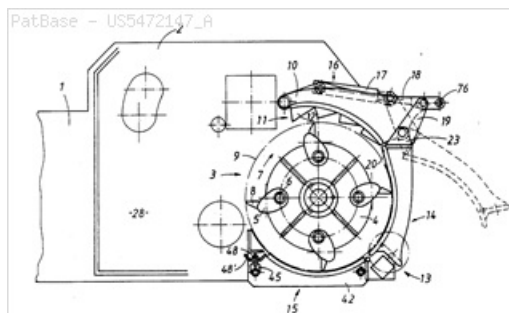
B02C18/40 B02C19/20 B02C21/02

CPC: B02C13/09 B02C13/284

European: B02C13/09 B02C13/284

US: 241/101.74 241/160 241/189.1 241/285.3 241/88.4 241/884

241/89 241/89.1 241/89.2 241/891 241/892



Family:

Publication number	Publication date	Application number	Application date
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CA2120692 C	19990831	CA19942120692	19940406
DE4311435 A1	19941013	DE19934311435	19930407
DE4311435 B4	20051006	DE19934311435	19930407

US5472147 A 19951205 US19940215521 19940322

Priority:

DE19934311435 19930407 CA19942120692 19940406

Probable Assignee: DOPPSTADT WERNER

Assignee(s): (std): DOPPSTADT WERNER

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Inventor(s): (std): DOPPSTADT WERNER

Inventor(s): DOPPSTADT WERNER 42555 VELBERT DE

Agent(s): RICHES MCKENZIE AND HERBERT LLP

110) Family number: 29370973 (US6797377B)

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Title: CLOTH-LIKE NONWOVEN WEBS MADE FROM THERMOPLASTIC POLYMERS

Abstract: Extruded fibers and nonwoven webs made from the fibers are disclosed having improved cloth-like properties and an improved aesthetic appearance. The fibers used to form the webs are made from a thermoplastic polymer containing titanium dioxide and at least one mineral filler such as kaolin or calcium carbonate. In particular, the fillers are added in the amount so that the fillers become encapsulated within the polymeric material.

Classifications:

International (IPC 8-9): D01F1/04 D01F6/06 D04H1/42 D04H1/56 D04H3/00 (Advanced/Invention);

D01F1/04 (Advanced/Non-invention);

D01F1/02 D04H1/42 D04H3/00 (Core/Invention)

International (IPC 1-7): D01F1/04 D02G3/00 D04H1/42 D04H3/00

CPC: Y10T428/2927 Y10T428/2929 Y10T428/2933 D01F1/04 D04H3/00 Y10T442/60 Y10T442/642 Y10T442/68 Y10T442/681 D04H1/4291 D04H1/4334 D04H1/4382

European: D01F1/04 D04H1/42 D04H3/00

US: 264/218 428/372 428/373 428/375 442/327 442/365 442/400 442/401 523/200 524/431 524/447

Family:

Publication number	Publication date	Application number	Application date
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AU199947271 A5	20000117	AU19990047271	19990629
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GB2354250 B2	20020529	GB20010000497	19990629
KR100656330 B1	20061212	KR20007015037	19990629
KR20010053307 A	20010625	KR20007015037	19990629
US6797377 BA	20040928	US19980108054	19980630
WO0000680 A1	20000106	WO1999US14739	19990629

Priority:

US19980108054 19980630 WO1999US14739 19990629 KR20007015037 20001229

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): KIMBERLY CLARK CO ; KIMBERLY CLARK CORP

Assignee(s): KIMBERLY CLARK WORLDWIDE INC

Inventor(s): (std): DELUCIA MARY LUCILLE ; HUDSON ROBERT L

Inventor(s): MARY LUCILLE DELUCIA ; ROBERT L HUDSON

Designated states: AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT UA UG UZ VN YU ZA ZW

111) Family number: 47485988 (US2010279085A)

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Title: NONWOVEN COMPOSITE INCLUDING POST-CONSUMER RECYCLED MATERIAL

Abstract: The present invention provides for a nonwoven web composite which contains at least 40 percent by weight of post consumer recycled materials. It has been surprisingly discovered that a nonwoven web composite of the present invention, with its fairly high post consumer recycled material content, has physical properties similar to those of a nonwoven web composite prepared from virgin materials.

Classifications:

International (IPC 8-9): B32B5/02 B32B5/26 B32B7/04 D04H1/42 D04H1/44 D04H3/14 (Advanced/Invention)

CPC: Y10T428/2481 D21H11/14 D21H13/12 Y10T442/681 Y10T442/689 B32B5/022 B32B5/06 B32B5/08 B32B5/26 B32B2250/20 B32B2262/0253 B32B2262/0276 B32B2262/062 B32B2262/065 B32B2262/067 B32B2262/14 B32B2307/50 B32B2307/54 B32B2307/56 B32B2307/72 B32B2307/726 B32B2432/00 D21H27/30

European: B32B29/02 D21H27/30 N21H11/14 N21H13/12

US: 428/196 428/196P 428/219 428/219S 442/401 442/401S 442/408 442/408S

PatBase - US2010279085_AA



Family:

Publication number	Publication date	Application number	Application date
BRPI1007103 A2	20160301	BR2010PI07103	20100430
CO6440582 A2	20120515	CO20110132229	20111006
MX2011010344 A1	20111028	MX20110010344	20100430
US2010279085 AA	20101104	US20100770812	20100430
WO10125545 A2	20101104	WO2010IB51912	20100430
WO10125545 A3	20110421	WO2010IB51912	20100430

Priority:

US20090214999P 20090430 US20100770812 20100430 WO2010IB51912 20100430

Probable Assignee: KIMBERLY CLARK CORP

Assignee(s): (std): ADAM GABRIEL HAMMAN ; KIMBERLY CLARK CO ; SKOOG HENRY

Assignee(s): KIMBERLY CLARK CORP ; KIMBERLY CLARK WORLDWIDE ; KIMBERLY CLARK WORLDWIDE INC

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Inventor(s): GABRIEL HAMMAN ADAM ; HENRY SKOONG ; GABRIEL HAMMAN ADAM ; HENRY SKOOG

Agent(s): J IAN RAISBECK; KIMBERLY CLARK WORLDWIDE INC TARA POHLKOTTE; DEAN RALPH H ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

112) Family number: 15264992 (WO0100917A1)

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Title: DURABLE MULTILAYER NONWOVEN MATERIALS

Abstract: A durable multi-layered meltblown fiber web is provided having a first layer of fine crystalline polypropylene fibers and a second layer of fibers bonded directly to the first layer of fibers. The second layer of fibers is formed from a blend of a crystalline polyolefin and an amorphous polyalphaolefin and can be of a similar size or larger average size than the fibers of the first layer. The multilayer meltblown fiber webs are durable, having a reciprocating abrasion resistance in excess of 1000 cycles, and can also provide a highly pliable web having improved drape.

Classifications:

International (IPC 8-9): B32B5/26 D01F6/46

D04H13/00 (Advanced/Invention);

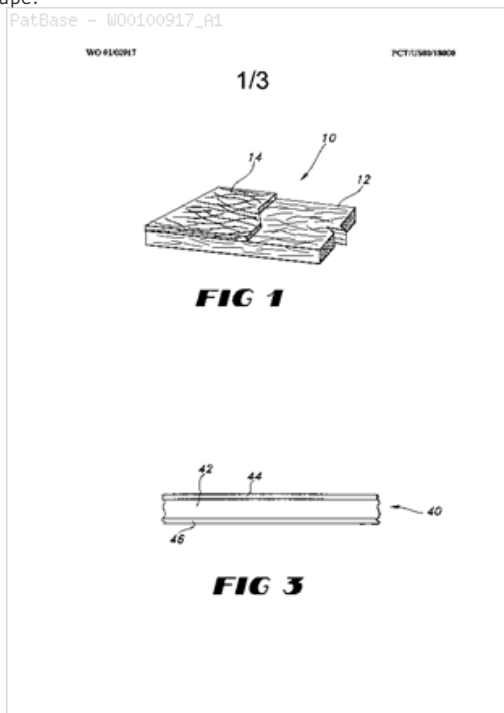
B32B5/22 D01F6/46 D04H13/00 (Core/Invention)

International (IPC 1-7): B32B5/26 D01F6/46 D04H13/00

CPC: D04H1/4291 D04H1/554 D04H1/559 D04H1/56 B32B2262/0253

B32B2305/20 B32B2307/554 B32B2307/718 B32B5/26 D01F6/46

European: B32B5/26 D01F6/46 D04H13/00B5



Family:

Publication number	Publication date	Application number	Application date
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AU200062025 A5	20010131	AU20000062025D	20000629
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DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR
LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN
SZ TD TG TJ TM TR TT TZ UA UG UZ VN YU ZA ZW