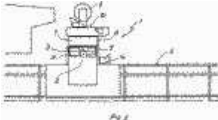
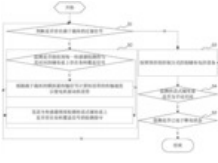
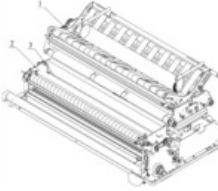
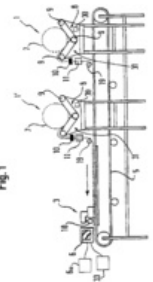
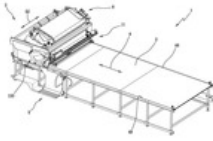
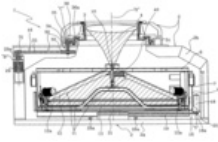
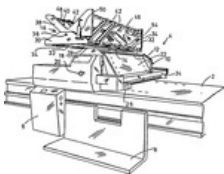
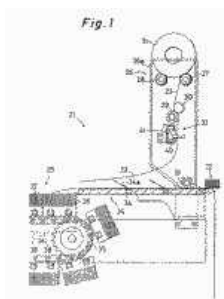
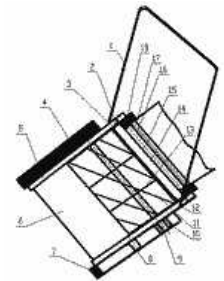
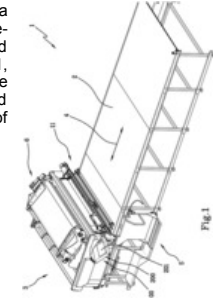
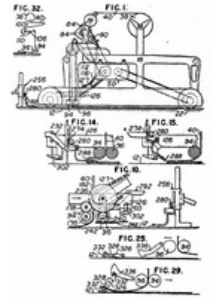


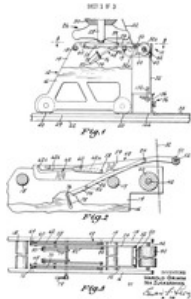
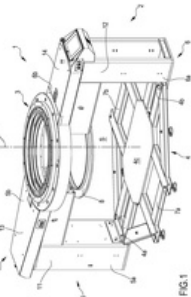
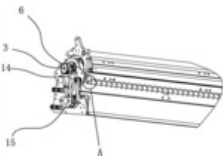
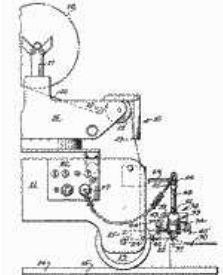
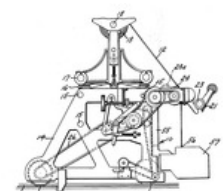
32008 results for (fabric and spreading and cutting and machine)/TI/AB/IW/TX - Collection: FAMPAT

#	 Title	Publication number	1st app. date	Applicant/Assignee		
1.	Fabric piece supporting carriage for spreading fabrics on fabric spreading tables	IT8920370	1989-05-04	IMA INDUSTRIA MACCHINE AUTOMATICHE*	100 %	
A carriage for spreading fabrics on fabric spreading tables, for forming a fabric mattress, comprises a rotary turret (7) supporting a fabric bearing cylindrical member (9) and a spreading/cutting assembly (6) which is slidably mounted on vertical guides (5, 5') and can be displaced to the bottom portion of the turret so as to turn with the latter.						
2.	Control method and system for fabric spreading production line and fabric spreading table electric control equipment	CN105600571	2015-12-31	BULLMER ELECTROMECHANICAL TECHNOLOGY*	100 %	
The invention provides a control method for a fabric spreading production line. The control method comprises the following steps: judging whether a window through signal from a cutting bed is available or not; if so, monitoring whether a fabric covering signal which is detected by each sensor is available on a conveying fabric spreading table corresponding to each sensor, so as to confirm that which one of N sections of the conveying fabric spreading table is started or stopped; if the fabric covering signal is received, calculating the conveying speed of a conveyor belt according to an analog quantity signal from the cutting bed, so as to enable a motor corresponding to the conveying fabric spreading table to drive the conveyor belt; if not, controlling fabric spreading table electric equipment in a preset control mode. By the adoption of the control method and the system for the fabric spreading production line, a fabric on the conveyor belt can be fed into a cutting area of the cutting bed in a flat manner, the purpose that the conveyor belt moves synchronously with a horsehair bed of the cutting bed at a same speed when the cutting bed moves through a window is realized, operation is simplified due to synchronized driving, and the trouble that the fabric feeding speed is controlled through manual operation is avoided.						
3.	Fabric spreading speed control device and method for fabric spreading machine	CN104692183	2014-12-24	LONG PARK & EAGLE INTELLIGENT TECHNOLOGY*	100 %	
The invention relates to the technical field of a numerical control machine tool, and discloses a fabric spreading speed control device and method for a fabric spreading machine . The fabric spreading machine comprises a fabric conveying mechanism and a fabric spreading table. The fabric spreading speed control method for the fabric spreading machine comprises the following steps: the fabric conveying mechanism conveys to-be-spread fabric to the fabric spreading table through a fabric pressing mechanism, wherein the position of the fabric pressing mechanism is changed with change of the fabric conveying speed of the fabric conveying mechanism; when the fabric conveying speed exceeds a preset range, a position sensing mechanism senses the position of the fabric pressing mechanism and outputs the position to a controller; the controller acquires the fabric conveying speed according to the received data, and adjusts the fabric conveying speed of the fabric conveying mechanism to be within the preset range. Compared with the prior art, the fabric conveying speed of the fabric conveying mechanism is detected in real time and is adjusted according to a detection result, a to-be-spread material can be spread to an accurate preset length, the cutting accuracy is improved, the defective rate is reduced, materials are saved, and loss is reduced.						
4.	Facility for cutting fabric, facility for feeding fabric and method for cutting fabric	DE19654796	1996-12-31	GPV MBH* SCHULTES ROBERT W SCHULTES ROBERT WERNER	100 %	
The invention relates to a facility for cutting fabric comprising at least one fabric wind-off device (1, 1') for one fabric bolt (7), a conveyor belt (5) for conveying the unwound fabric , and a cutting device (3) which cuts a piece of fabric of a given shape from the length of fabric deposited on the conveyor belt (5). Said conveyor belt (5) extends without interruption from at least that point where the fabric is deposited by the wind-off device (1, 1') to the working area of the cutting device (3). The wind-off device (1, 1') places the length of fabric directly onto the conveyor belt (5) or onto one or more lengths of fabric already deposited on said conveyor belt. The invention further relates to a facility for feeding fabric and a method for cutting fabric on a cutting facility.						
5.	Automatic spreading machine and spreading system	KR20120119685	2011-04-22	BMO*	100 %	
PURPOSE: A method and a system for managing the operation of a spreading machine are provided to effectively manage a subject fabric and to easily obtain working result by each roll. CONSTITUTION: A method for managing the operation of a spreading machine using a loader comprises: a step of inputting spreading work plan information using dedicated input program(S100); a step of inputting the planning information from a PC to the loader(S200); a step of inputting the planning information from the loader and the spreading machine (S300); a step of monitoring the spreading and extracting actual spreading information(S400); a step of inputting the spreading information from the spreading machine to the loader(S500); and a step of inputting the spreading information from the loader to the PC(S600). [Reference numerals] (AA) Start; (BB) End; (S100) Inputting cloth-spreading plan information to PC using dedicated input program; (S200) Inputting cloth-spreading plan information to loader; (S300) Inputting cloth-spreading plan to spreading machine ; (S400) Monitoring spreading process; (S500) Inputting cloth-spreading information to loader; (S600) Inputting cloth-spreading information to PC						
6.	Machine for spreading fabric	WO2016181298	2016-05-10	MORGAN TECNICA*	100 %	
A machine (1) for spreading fabric on a spreading plane (2) comprising a carriage (3) that is movable on the spreading plane , the carriage comprising an unwinding system (6) for unwinding the fabric ; an inclined chute (10) arranged below; a cutting system (11) for cutting the fabric , arranged at a lower end (12) of the chute; and a movement system (35) for moving the unwinding system between a first and a second unwinding operating configuration, wherein in the first configuration, a first end (14) of the unwinding system is vertical to the chute (10) and in the second configuration, the first end (14) is in an advanced position towards the cutting head (13).						
7.	Circular knitting machine and method for collecting the fabric produced by a circular knitting machine	US20050229642	2004-04-14	SANTONI* SANTONI & C VIGNONI	100 %	
A method for collecting the fabric (4) produced by the cylinder (3) of a circular knitting machine , comprising at least the steps of taking down said fabric (4), cutting and collecting it, in which the fabric is cut along a predefined cutting trajectory inclined with respect to the rotation axis ("X") of the cylinder (3). The cutting means (10) are actuated in rotation at a speed differing from the speed of the cylinder (3) of the knitting machine . It is further provided for a circular knitting machine comprising a cylinder (3) turning around a central rotation axis ("X") so as to produce a tubular fabric (4), a take-down and collecting assembly (6) engaging the fabric (4) on the opposite side with respect to the cylinder and equipped with cutting means (10). Said cutting means can be actuated in rotation around the central rotation axis ("X") at an angular speed differing from the speed of the cylinder (3).						

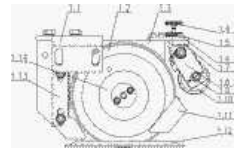
8.	Improvements in fabric spreading machines	GB812824	1955-08-04	CUTTING ROOM APPLIANCES*	100 %
812,824. Folding fabric. CUTTING ROOM APPLIANCES CORPORATION. Aug. 4, 1955, No. 22463/55. Class 42 (2). [Also in Group XVI] A fabric spreading machine comprises a carriage moving back and forth over a surface and supporting fabric, feeding means including a feed roll, guiding means for guiding the fabric and from the feed roll, spreading means receiving fed fabric from the feeding means, for spreading successive superimposed layers upon the surface, and means for varying the speed of feed, by varying the amount of envelopment of the fabric around the feed roll, so as to correct any overfeed of fabric to the spreading means. Fabric feed arrangements.-As shown, Fig. 1, fabric 40 is drawn from a roll 38 by a feed roll 64 having a rubber or other friction surface, driven from a carriage wheel 22 via a gear-box 50 which provides uni-directional drive irrespective of the direction of rotation of wheel 22. The degree of engagement of the fabric with roll 64 is controlled by adjustment of a guide roller 80 carried on pivoted arms 84. From roller 80, the fabric falls into a trough 112 and thence passes downwards to layer-forming rollers 94, 96; trough 112 allows fabric to accumulate in the event of any over-feeding by roll 64. For the greater part of the carriage travel, rollers 94, 96 are stationary and spaced apart as shown in Fig. 10, the fabric being drawn over the smooth surface of one of the rollers against the pull of an end-fold retaining service. Near the end of the carriage travel, a lever on the carriage engages a cam surface on the table 12 and engages a clutch to impart drive from gear-box 50 to rollers 94, 96 via chains 118, 127, Fig. 1, and gears 182, 178, 176 and 240, Fig. 10. Roller 96 is carried on pivoted arms 236 and is normally held away from roller 94 by a spring 250; when roller 96 starts to rotate, a roller 242 on the same spindle rolls along a friction surface 246 to bring roller 96 into fabric-feeding engagement with roller 94. This positive fabric feed continues until the cam and lever disengage on the return motion of the carriage. Rollers 94, 96 are carried by blocks 126 which are vertically slidable in the carriage frame 16 on a ratchet mechanism; the blocks can be raised manually, and are automatically lifted at one end of the carriage travel, by cam and ratchet mechanism, a distance equal to the thickness of the fabric layers just laid down. In an alternative feed arrangement, Fig. 32, the fabric 40 passes around a feed roll 100 similar to roll 64 and thence over a guide roller 106 located as shown; in the event of overfeeding, a loop 110 forms which reduces the contact between the feed roll 100 and the fabric sufficiently to lessen the rate of fabric feed until the loop is taken up again. End-fold clamping arrangements.-In one arrangement, Figs. 14 and 15, a fold-clamp plate 288 is pivotally carried by a bar 274 slidable vertically in adjustable carriers 256. As the carriage reaches the end of its travel an arm 292 on block 126 rides over a roller 280 carried by bar 274 until it reaches the Fig. 14 position. On reversal of the carriage, arm 292 engages beneath roller 280 and lifts bar 274 so that plate 288 is withdrawn from the fabric as shown in Fig. 15. An arm 302 on block 126 then raises plate 288 so that, as the carriage moves on, the plate falls on to the newly formed fold. In an alternative arrangement, Figs. 25 and 29, the last fold of fabric is trapped, as shown in Fig. 25, beneath one roller 332 of a pair carried in a frame 328 pivotally mounted at 326 on arms (not shown) which are pivoted at the end of the table. Hooked fingers 336 on the carriage ride over frame 328 as another fold is formed on top of the frame. On the return movement of the carriage, fingers 336 engage beneath the end of frame 328 and turn it over as shown in Fig. 29 so that the other roller 332 drops to trap the newly-formed fold.					
9.	Machine a etaler un tissu	DE202017101974	2016-04-07	MORGAN TECNICA*	100 %
A machine 1 used for spreading fabrics comprises a movable tray 3 and an electric control unit 100, the tray 3 is used to spread a or a plurality of fabric laminations on a spreading surface, and the electric control unit 100 is used to command and control the machine 1 and is programmed to display a first image 202 representing the to-be-spread first fabric lamination on a touch screen 201, real-time determine a first component of a path of an object contacted with the touch screen 201 along a first direction and a second component along a second direction, wherein the first and second components are not parallel with each other; display the first image 202 on the touch screen 201, wherein the first image has the real-time sizes as the functions of the first and second components; real-time determine and display the length of the sheet lamination as the function of the first component and the number of the laminations in the sheet lamination as the function of the second component, on the touch screen 201; command and control the operation of the machine 1 to spread the sheet laminations, wherein the sheet laminations have the length equal to the determined length and have the number of the laminations equal to the determined number. (From CN107265171 A)					
10.	Seed stem cutting spreading machine	CN102326476	2010-07-13	CHEN PING;LING XUAN;WANG XUDONG	100 %
The invention discloses a seed stem cutting spreading machine, which comprises road wheels, a transmission device, a cutting device and a cloth spreading device; the seed stem cutting spreading machine is pushed by labor power to travel on greensward of a seedling field, the road wheels drive a movable cutter to rotate so as to carry out the cutting operation, the cut seed stems are thrown backwards through the inertia of the rotation of the movable cutter to fall on a non-woven fabric which is spread by the cloth spreading device; when the seed stem cutting spreading machine is driven forwards, the movable cutter rotates, and the movable cutter is free from rotating when the seed stem cutting spreading machine is driven backwards; and the seed stem cutting spreading machine has a simple structure, is free from requiring power when in work, has no energy consumption and no noise, is free from polluting the environment, and is suitable for cutting and collecting the seed stems required for the production of substrate-free grass blanket.					
11.	Apparatus and method for feeding fabric covering sheet into cutting machine	JPH07214496	1994-01-27	SHIMA SEIKI MANUFACTURING*	100 %
A feeding apparatus (26) for automatically feeding an air-impermeable fabric covering sheet at the time of feeding a fabric into an automatic cutting machine (21) is provided above an air table (24) at the upstream side of a cutting table (25) of the cutting machine (21). On the air table (24), air is blown out from an air nozzle (34) to the cutting table (25) side. The cutting table (25) is capable of conveying a laminated sheet (22) of fabric to be put on a conveyor (35). A cutting support plane (37) of the surface of the conveyor (35) is formed of a front end of a bristle brush (36). The bristle brush (36) is air-permeable, and communicates with a suction chamber (39) inside the cutting table (25), and is sucked in vacuum. When the fabric laminated sheet (22) is delivered on the cutting support plane, it is detected by a fabric sensor (33), and a delivery roller (29) is driven to rotate, and fabric covering sheet (23) is let-out from a fabric covering sheet roll (31). When delivery of the fabric is completed, the fabric covering sheet (23) can be cut off by a cutting device (32). <IMAGE>					
12.	Method and spreading machine for building up a pile of fabric lengths on a spreading table	DK585187	1987-11-09	NIEBUHR MASKINFABRIK*	100 %
For the spreading and piling of fabric lengths on a spreading table (2) a spreading device (4) is used which is moveable along the table and comprising an upper carriage (16) for a fabric roll (52) from which the web (58) is rolled off for laying out on the table in several layers by a reciprocal movement of the spreading appliance. By the associated passing down of the fabric a certain gravitational pull in the web arises whereby the fabric length may change its width all according to its being laid out as an upper or a lower layer in the pile. By the invention the web is caused to pass along an inclined plate (22, 62) which relieves the tensile stress and which extends all the way down to the actual spreading level, the inclined plate (62) being arranged so as to be gradually raised during the build-up of the fabric length pile (60).					

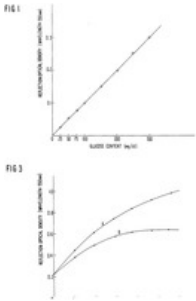
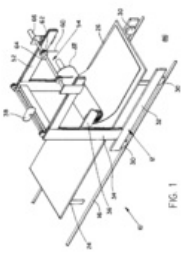
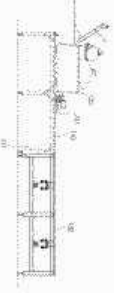
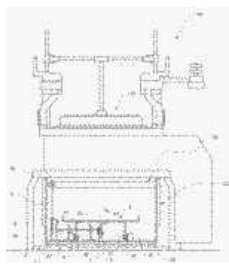
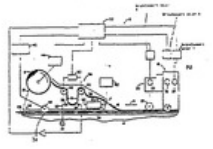
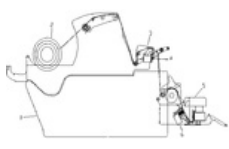


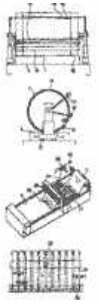
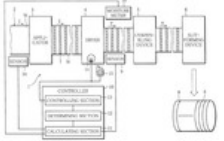
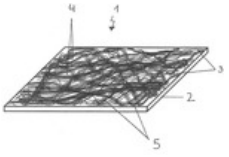
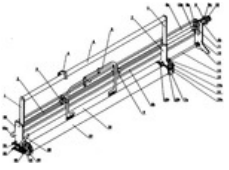
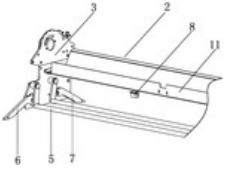
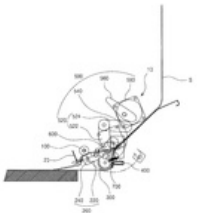
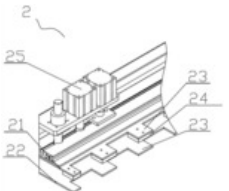
13.	Method and apparatus for discharging fabric from a cloth spreading machine	EP0664966	1994-01-27	SHIMA SEIKI MANUFACTURING*	100 %
A running carriage (23) delivers, spreads, and piles a sheet material to be spread to form a piled sheet material (24), while running on a spreading table (22) of a cloth spreading machine (21). The piled sheet material (24) is placed on an underlay sheet (25) which has a larger area than that of the piled sheet material (24). At the bottom of the carriage (23), a foot presser (27) as pressing means is provided. The foot presser (27) is designed to be vertically displaced by a cylinder (28). Driving to rotate a blower motor (29) makes pressed air to be blown out by a fan (30) through nozzles (31) towards the surface of the spreading table (22), thereby reducing the load of the piled sheet material (24). The underlay sheet (25) is pressed by the foot presser (27) and the carriage (23) starts running, whereby the piled sheet (24) is delivered. <IMAGE> <IMAGE>					
14.	Knitted fabric edge unfolding device for spreading machine	CN102602729	2012-03-13	XU XIAOLIN	100 %
The invention discloses a knitted fabric edge unfolding device for a spreading machine, wherein a fabric edge unfolding device is arranged on the spreading machine, and the edge unfolding device is arranged at the two side edges of an inclined unfolding position of the spreading machine or the two side edges of a cutting component position of the spreading machine. The fabric edge unfolding device is wound with a segment of belt on two belt pulley transmission components, the outer surface of the belt is provided with a dentiform rough surface, and the belts on the belt pulley transmission components at the two side edges of the inclined unfolding position or at the two side edges of the cutting component position are respectively driven outwards. The edge unfolding device disclosed by the invention has the effect of unfolding a fabric edge, thereby reducing the fabric consumption, saving the cost and improving the working efficiency.					
15.	Apparatus for replacing fabric pieces in textile spreading machines	IT8920371	1989-05-04	IMA INDUSTRIA MACCHINE AUTOMATICHE*	100 %
An apparatus for replacing fabric pieces in textile spreading machines comprises two pairs of motor driven carriages mounted on vertical shoulders (1) and driven by timed reciprocating movements along paths converging toward a piece supporting member (3) of the spreading machine, the carriages bearing each a slide (2, 2') about the periphery of which a chain is slidably driven including means for restraining the mandrel (9, 10) of a fabric piece to be loaded or unloaded on/from the supporting member (3) of the spreading machine thereon the piece bearing mandrel can be restrained between roller pairs (4, 4') mounted on supporting plates (5) which are pivoted at one end thereof and supported, at the other end thereof, by articulated arm.					
16.	Woven fabric spreading machine	CN202988389	2012-12-21	XU XIAOLIN	100 %
The utility model provides a woven fabric spreading machine which comprises a main machine body, a fabric slitting device and a special woven fabric spreading mechanism. The main machine body is slidably arranged on a spreading bed, the fabric slitting device and the special woven fabric spreading mechanism are arranged on the main machine body, the special woven fabric spreading mechanism comprises a support arm, a fabric releasing mechanism is arranged on one side of the support arm, a fabric spreading mechanism used for spreading fabrics is arranged on the front upper side of the fabric releasing mechanism on the support arm, a fabric piecing mechanism is arranged between the fabric releasing mechanism and the fabric spreading mechanism, a front roller is further arranged at the front of the fabric spreading mechanism, a fabric feeding roller mechanism is arranged in front of the front roller, and the fabric slitting device is arranged below the fabric feeding roller mechanism. The woven fabric spreading machine has the advantages that the woven fabric spreading machine is under servo control, and is high in response speed and accurate in positioning, neatness of two ends of each woven fabric can be effectively controlled when the woven fabric is spread by the spreading machine, the fabric slitting accuracy is improved, and the woven fabric spreading machine is simple in structure.					
17.	Apparatus for loading and unloading fabric rolls onto spreading machines	EP0094471	1982-05-18	I M A* IMA INDUSTRIA MACCHINE AUTOMATICHE	100 %
The apparatus comprises a vertically extending magazine, of the carousel type (1), bearing the piece goods (9) to be supplied, as supported on suitable mandrels (8), and which piece goods are discharged, according to a programmable sequence, on a provided loading device. The latter comprises a first carriage pair (14) which, by firmly engaging the ends of the piece bearing mandrels (8), transfer the piece goods (9), in a co-ordinated way, from the mentioned magazine (1) to the spreading machine turret. A further carriage pair (15), on the other hand, is effective to displace the mandrels (8) discharged by the spreading machine to the vertical magazine (1). The apparatus according to the invention, in particular, is able of finding, selecting and preparing the piece good (9) on the vertical magazine (1), for loading the piece (9) on the spreading machine and, moreover, it is effective to load the piece and discharge the mandrel from the spreading machine, according to the order in which the piece had been previously loaded on the vertically extending magazine.					
18.	Industrial fabric comprising interconnected rings	US20040092182	2002-11-13	ALBANY INTERNATIONAL*	100 %
An on- machine-seamable industrial fabric comprising rings connected by pintles, the rings and pintles having flow-through voids through their solid portion. In one embodiment, the rings are oriented in the machine direction and the pintles extend in the cross-machine direction. Such configuration improves the strength of the fabric and provides resistance to needling damage. In another embodiment, the rings are oriented in the crossmachine direction and the pintles extend in the machine direction.					
19.	Fabric spreading, fabric spreading device and mark attaching device to underlaid sheet	JPH08118292	1994-10-26	SHIMA SEIKI MANUFACTURING*	100 %
PURPOSE: To easily carry out the selection work after cut surely, by applying a mark corresponding to the part to be cut, without suspending the fabric spreading work or cutting work. CONSTITUTION: On the upper side of an underlaid sheet 5 spread on a fabric spreading table, an original point label 29 is attached, and forms a standard for the fabric spreading starting position of piled fabrics 4. On the underside of the underlaid sheet 5, a part label 30 for discriminating a part in correspondence with the part for cutting the piled fabrics 4 is attached. On one side of the fabric spreading table 2, a label attaching device 10 for accommodating an underlaid sheet roll 11 and a label roll 12 is installed. On the underlaid sheet 5, the part label 30 and the original point label 29 are attached by a part label head 15 and an original point label head 16. On an attached label 31, the data corresponding to the original point label 29 and the part label 30 is printed on a printing head 13.					

20.	Turntable fabric spreading machine	US3672662	1970-03-19	PANTHER MACHINE*	100 %	
In a turntable fabric spreading machine having a positive drive roller for drawing fabric off a supply roll and positively feeding it through a cutting assembly to a table surface, handle-actuated cam means mounts an idler roller for movement between an operative position in which it is in close proximity to the positive feed roller for causing the fabric to wrap around the latter, and a retracted position in which it is spaced a substantial distance from the feed roller to permit the fabric to be manually fed therebetween. Handle-actuated cam means are also provided to separate the front wall of the cutting assembly housing from a guard plate normally closely spaced from said front wall, in order to permit fabric to be manually fed between said front wall and guard plate.						
21.	Hemming, folding and fabric spreading cutting machine	CN107697746	2017-09-19	YANCHENG JINGYUANYUAN MACHINERY*	100 %	
The invention provides a hemming, folding and fabric spreading cutting machine . The hemming, folding and fabric spreading cutting machine sequentially comprises an unwinding mechanism, a hemming and fabric folding mechanism and a pulling storing mechanism in the feeding direction of fabrics, wherein the unwinding mechanism comprises an unwinding rack, an unwinding shaft and an unwinding motor; the hemming and fabric folding mechanism comprises a hemming and fabric folding rack, a hemming machine and a fabric folding rod; and the pulling storing mechanism comprises a pulling rack, a pulling roller, a pulling motor, a fabric guiding roller, a storing rack, a cutting device and a fabric spreading device. The hemming, folding and fabric spreading cutting machine can be used for the fabric spreading and stacking of thin elastic fabrics after hemming, folding and cutting and is efficient in running. Fabric spreading tension is effectively controlled so as to ensure cutting precision and further ensure the following processing quality.						
22.	Open-type circular knitting machine for knitwear with take-down and/or collecting group of the fabric	ITBS20130077	2013-05-28	SANTONI*	100 %	
A circular knitting machine for knitwear (1), of an "open" type and configured for producing fabric (T) and collecting it in an open configuration, i.e. in a single layer, comprising a base frame (2) constituting the bearing structure of the machine and provided with a support upper ring or element (3), with a lower base or cross-base (4), and with at least two support legs (5, 6) interposed between, and connecting, in at least two distinct and laterally distanced positions, the upper ring and the lower base, such that the upper ring (3) is vertically superposed on, and distanced from, the lower base (4), and in that between them a collecting space (S) is vertically defined. The machine comprises a knitting head (H) mounted to the upper ring (3) and provided with at least a rotating needle-bearing organ (0), being in a form of a needle cylinder or a needle plate, with a plurality of needles movably mounted to the needle-bearing organ, and with command means for selectively activating the plurality of needles for enabling production of a fabric . The machine comprises a take-down and/or collecting group (30) movably housed in the collecting space (S) and able to open and stretch the fabric produced by the machine , winding it in a single layer and continuously on at least a collecting roller (31). The whole take-down and/or collecting group is rotatably mounted hanging to the base frame (2) or to the needle-bearing organ (0), such as to be vertically suspended in the collecting space (S).						
23.	Anti-drawing device of fabric spreading machine	CN107244579	2017-07-13	BULLMER ELECTROMECHANICAL TECHNOLOGY*	100 %	
The invention provides an anti-drawing device of a fabric spreading machine , and belongs to the technical field of machines. By adoption of the anti-drawing device of the fabric spreading machine , the problem that in the prior art, a fabric spreading roller of a fabric spreading machine is prone to getting stuck, and consequently fabric cannot be discharged is solved. The fabric spreading machine comprises a machine frame and a fabric spreading wheel, and the fabric spreading wheel is rotatably connected to the machine frame through a fabric spreading wheel shaft. The anti-drawing device comprises an anti-drawing rod, and the anti-drawing rod is located on one side of the fabric spreading wheel and is opposite to the bottom of the fabric spreading wheel. The anti-drawing rod and the fabric spreading wheel shaft are connected through a transmission mechanism, and the fabric spreading wheel shaft can rotate to drive the anti-drawing rod to rotate in the same direction. The linear speed of the anti-drawing rod is higher than that of the fabric spreading wheel shaft. Power of the anti-drawing rod of the anti-drawing device of the fabric spreading machine is from the fabric spreading wheel shaft, and the linear speed of the anti-drawing rod is higher than that of the fabric spreading wheel shaft so that in the in the fabric discharging process, fabric can be driven by the anti-drawing rod to be pulled downwards, the situation that the fabric is drawn to the bottom of the fabric spreading wheel under the effect of static electricity is prevented, and normal fabric spreading is ensured.						
24.	Long-handled cutting apparatus for a cloth spreading machine	US4073206	1977-01-27	CUTTERS EXCHANGE* CUTTERS MACHINE SABER INDUSTRIES*	100 %	
A cutter head mounted upon a cloth spreading machine for longitudinal movement widthwise of the cloth spreading machine for transversely cutting cloth laid upon a cutting table. An elongated handle member is swivelly connected to said cutter head for manual movement of the cutter head over the entire width of the cloth spreading machine by an operator standing on one side of the spreading machine . The cutter head may be removed from the spreading machine and the handle member may be rendered rigid with respect to the cutter head, so that the cutter head may be manipulated for cutting cloth independently of the cloth spreading machine .						
25.	Single-spreading launching fabric presser of spreading machine	CN108004755	2017-12-31	SPEED CHINA AUTOMATION TECHNOLOGY*	100 %	
The invention discloses a single-spreading launching fabric presser of a spreading machine . The single-spreading launching fabric presser of the spreading machine is installed below a fabric sending device of the spreading machine , and comprises a machine frame. The lower part of the machine frame is fixed on a sliding rail by using a sliding rail base. The single-spreading launching fabric presser of the spreading machine is characterized in that a spring is further connected between the machine frame and the sliding rail, the machine frame is connected with a pressing plate by using a pin shaft, and two sides of the pressing plate are provided with a lug. According to the single-spreading launching fabric presser of the spreading machine , in a single-spreading state of the spreading machine , the lug at two sides of the pressing plate is pushed, and the spring between the machine frame and the sliding rail is stretched. While the spreading machine reaches a fabric cutting position for completing a fabric cutting operation and the spreading machine is returned, the pressing plate on the machine frame is launched, and the end head of fabric is pressed in the single-spreading state, so the defect of the upwarp fabric end head is avoided, and the precision of cutting the fabric is improved.						
26.	Fabric spreading carriage for face up, one way operation having fabric clamping cutting assembly	US3941366	1974-01-24	CUTTING ROOM APPLIANCES*	100 %	
A carriage assembly for automatic face up one way spreading of multiple plies of fabric or any other web-like material of a predetermined length, which is automated to operate in a continuous manner in the absence of operator manipulation at the termination of each fabric spreading cycle. The device incorporates a fabric or web- cutting assembly normally enclosing a transversely traveling severing blade and means for automatically engaging the free end of the fabric after sequenced severing so as to maintain the fabric in a fixed relation relative to the assembly during return or non- spreading carriage motion thereby preventing disturbance or change of position of the free end of the fabric as caused by carriage motion airflow, so that upon automatic recommencement of spreading , the end of the fabric will be deposited at a predetermined position on the spreading surface which will be accurately repeated for each subsequent automatically deposited ply of fabric , thereby providing maximum fabric utilization.						

27.	Automatic cloth cutting device used for fully-automatic cloth spreading machine	CN202208853	2011-04-09	TAIZHOU TOPCUT BULLMER ELECTROMECHANICAL TECHNOLOGY*	100 %
The utility model belongs to the technical field of clothing equipment and especially to an automatic cloth cutting device used for a fully-automatic cloth spreading machine. A cutter driving device is arranged on a rear side of a small cutter installing plate. A round cutter driven by the cutter driving device and a cutter protecting mechanism are arranged in a front side of the small cutter installing plate. A presser foot mechanism is arranged in a lower side of the small cutter installing plate. And a cutter sharpening mechanism is arranged in a right side or a left side of the small cutter installing plate. A small cutter device installing plate capable of connecting the small cutter installing plate to the cloth spreading machine is arranged on the small cutter installing plate. The automatic cloth cutting device used for the fully-automatic cloth spreading machine in the utility model adopts a relatively independent fixed structure, thereby making the variation range of the cutter installation position to be large. A symmetric structure of presser foots and a double cutting edge structure of a bottom blade of the small cutter enable the automatic cutting device to cut cloth in two directions. A cutter sharpening wheel limit device composed of knurled thumb screws and knurled thin nuts and a small cutter grinding wheel installing plate in a certain angle control the sharpening volume and the sharpening angle effectively. And the sharpening precision is high. A safety protection measure is provided in the utility model, and can protect the cutter effectively and avoid an operator from hurting himself.					
28.	Machine for continuous bias cutting of tubular fabric	DE2659312	1975-12-29	HANES SARA LEE*	100 %
Automated machine for the continuous bias cutting of an elongated tube of material, such as tubular knitted fabric, into a plurality of individual strips, and winding the strips into a plurality of rolls. The tubular material is advanced axially at a uniform rate from a supply to a cutting and rolling section by a plurality of skewable rotatable cylinders acting as a positive feeding means. As the tubular material is withdrawn from the supply, it passes over a spreader which opens and tensions it. The skewed cylinders cause the tube to rotate about its axis as it advances. Control means are utilized to adjust automatically the skew angles of the cylinders, to increase or decrease the rate of advance of the tube, to compensate for variations inherent in the material which affect its rate of feed. Control means also are utilized to adjust automatically the tension exerted by the spreader, to correlate such tension with the rate of advance as determined by the skew angles of the cylinders. A doffing mechanism is provided, to permit automatic removal of the cut rolls of material after reaching a selected size. The machine maintains the tube substantially untwisted, relative to its axis, and under substantially uniform tension, while advancing it wrinkle-free to the cutting and rolling section of the machine at a uniformly maintained rate of feed.					
29.	Control system of fabric spreading device	CN106743969	2017-03-28	BULLMER ELECTROMECHANICAL TECHNOLOGY*	100 %
The invention relates to a control system of a fabric spreading device. The control system comprises a fabric spreading machine, a limit switch, an inhaul cable and a data processing module, wherein the limit switch comprises a wheel disc, a switch blade, a pull rod and an elastic part; the pull rod and the switch blade are arranged in the radial direction of the wheel disc in a deviated manner; the pull force direction of the inhaul cable is opposite to the restoring force direction of the elastic part; the data processing module comprises a contact and a data processing unit, the on and off of the contact are controlled by the switch blade, and the data processing unit receives the triggering signal of the contact; the data processing unit controls the fabric spreading machine to switch on and switch off according to the triggering signal of the contact. The control system has the advantages that by the control system, an operator can pull the inhaul cable to switch on and switch off the fabric spreading machine, the operator does not need to walk back and forth beside a fabric spreading table of 30-50 meters, and time and manpower waste can be avoided.					
30.	Auxiliary transmission mechanism for fabric roll of fabric spreading machine	CN106586623	2016-11-23	BULLMER ELECTROMECHANICAL TECHNOLOGY*	100 %
The invention provides an auxiliary transmission mechanism for a fabric roll of a fabric spreading machine, belongs to the technical field of machinery, and aims at solving the problems of an existing fabric spreading machine which is not applicable to large, thin and smooth fabrics and is low in generality. The auxiliary transmission mechanism comprises a supporting frame, a driving motor and a transmission shaft, wherein a mounting seat is arranged at the bottom part of the supporting frame; the supporting frame is detachably connected to a main engine of the fabric spreading machine through the mounting seat; the driving motor is fixed to one side of the supporting frame; the transmission shaft, which is in transmission connection with the driving motor, is rotatably and detachably connected to the supporting frame; two clamping wheels are arranged on the transmission shaft in a sleeving mode and can slide along the transmission shaft; the fabric roll can be positioned and clamped to the transmission shaft through the clamping wheels. According to the auxiliary transmission mechanism for the fabric roll of the fabric spreading machine, the fabric roll is arranged on the transmission shaft, and two ends of the fabric roll are clamped through the corresponding clamping wheels; the clamping wheels can be adjusted according to the size of the fabric roll; the driving motor can actively drive the fabric roll to rotate, thus a fabric can be easily released without tensile force, and as a result, the generality of the fabric spreading machine can be improved.					
31.	Method and machine for spreading a fabric-type textile sheet	CA2900732	2013-03-08	CELL HECTARES ORCHID FOLDER SEMANTIC HEXCEL REINFORCEMENTS* HEXEL RUNNCHEMAN	100 %
The invention concerns a method for spreading a textile sheet (2) comprising at least warp yarns, wherein: the sheet (2) is made to pass between at least two rotary rollers (5), (6), of which the axes (A) extend parallel to one another and substantially perpendicular to the direction of travel of the sheet; the sheet is made to pass under pressure between at least one pressure generator (Si) of the rollers which are driven so as to oscillate axially and in phase opposition. According to the invention, at least one pressure generator of the rollers (5), (6) is produced with adjustable pressure values along the generator (G1) in order to spread the sheet (2) with a low degree of thickness variability. The invention also concerns a machine suitable for performing this method.					
32.	On- machine -seamable industrial fabric having seam-reinforcing rings	WO2004010023	2002-07-24	ALBANY INTERNATIONAL* ALBANY INTERNATIONAL CORPORATION	100 %
An on-machine-seamable industrial fabric includes rings (54) in the seam region. In one principal embodiment, the rings (54) are between the seaming loops (46) at the two ends of the fabric and enclose at least one cross-machine-direction (CD) yarn (50). As such, the rings (54) strengthen the seam region (44) by involving the CD yarns (50) as a reinforcement. In another principal embodiment, the rings (54) are used instead of a seaming spiral.					
33.	Drive platform for fabric spreading machines	US4475729	1983-12-30	SPREADING MACHINE EXCHANGE*	100 %
A drive platform assembly is provided for attachment to the carriage of an existing manually-operable fabric spreading machine to convert the machine to motorized operation. The drive platform is connected to the fabric spreading carriage of the fabric spreading machine and includes a drive motor which drives the drive platform in both a forward and reverse direction thereby enabling the carriage to spread successive layers of fabric onto a cutting table. This motion of the drive platform is guided by guide wheel assemblies which cooperate with a guide track mounted on the cutting table. This apparatus includes a speed control and a pair of cam assemblies which automatically reverse the direction of travel of the drive platform and the fabric spreading carriage at the end of each spreading stroke. The drive platform assembly includes a platform upon which an operator may stand to regulate the speed of the fabric spreading carriage, and also to observe and regulate the spreading operation.					



34.	Analysis material sheet	JPS5766359	1980-10-09	FUJIFILM*	100 %
An analysis material sheet is disclosed which is comprised of layers of material with strong adhesion for one another. The sheet includes a water-impermeable support having provided directly or indirectly thereon a layer of fabric. The fabric contains a hydrophobic organic polymer fiber and is physically activated on at least one surface thereof, with the physically activated surface being adhered directly or indirectly to the support. A reagent layer can be provided directly or indirectly on the liquid sample-spreading layer of fabric. By utilizing a fabric containing a hydrophobic organic polymer fiber, body fluids to be analyzed can be quickly and uniformly spread and by utilizing the physically activated surface of the fabric, strong adhesion between the layers can be obtained.					
					
35.	Floor supported fabric spreading machine	US6152438	1997-07-23	MORGAN; WADE	100 %
A fabric spreading machine including a dispensing system frame, a fabric dispensing assembly secured to the frame, a floor mounted track and a drive system secured to the frame for traversing the track. Also disclosed is a loading and unloading system for loading and unloading a fabric roll and securing it to the dispensing system frame. This system is designed to permit fabric to be dispensed from a fabric roll onto a conventional fabric spreading table without placing the weight of the fabric spreading machine directly on the fabric spreading table.					
					
36.	Table for aligning fabric in spreading machine	KR101133680	2011-07-18	SEMYEONG PREC*	100 %
PURPOSE: A table for aligning fabric in a spreading machine is provided to fix fabric at the upper end of a cutting board and to passively spread. CONSTITUTION: A table for aligning fabric in a spreading machine comprises: a working frame(110) which is extended in a longitudinal direction of aligned fabric; a spreading machine(120) having a plurality of rolls for aligning the fabric; and a cutting device for cutting the fabric; a cutting plate(130) for loading the fabric; and a fixation pin which fixes the fabric by being placed at the upper end of the cutting plate.					
					
37.	Apparatus of back and forth motion spreading pile up spandex fabric	KR20110064391	2009-12-08	YOO CHOL	100 %
PURPOSE: A reciprocating apparatus for spreading pile up of spandex fabric is provided to save operation cost and to ensure easy maintenance. CONSTITUTION: A reciprocating apparatus for spreading pile up of spandex fabric comprises: a base plate(2) which is mounted to rotate together with a rotation tray and having a shaft support bar which is vertically mounted at one end; a rail frame which is mounted to rotate together with a base plate along a rotation tray; a reciprocating tray(4) which is mounted to be movable back and forth; a rotation shaft(24) which is rotationally supported at a shaft bar(23); an interlocking sprocket(5b) which receives rotation power from a tension roller; and a guide plate(43) which is mounted for reciprocating motion.					
					
38.	Apparatus and method for performing work on a fabric wound onto a roller <unknown>debiteur</unknown>	GB8612982	1986-05-28	GERBER SCIENTIFIC*	100 %
A programmable fabric cutting apparatus comprises a table 14 having a fabric supporting surface 16, a fabric spreader 36 having a fabric supply roll S and movable to and fro longitudinally relative to the table 14 to spread a fabric F, as it is dispensed from the roll S by drive means 46, on the surface 16, a variable frequency vibrator 58 for vibrating at varying frequencies a portion of the fabric to relieve fabric stresses as the fabric F is dispensed in order to be spread, and a rotary cutting device 20,24 for cutting predetermined portions off the fabric in response to command signals from a programmable controller 22. The cutting device 20,24 is mounted on a carriage 18 for transverse movement relative to the longitudinal table 14 and the carriage 18 carries the devices 20,24 to and fro longitudinally of the table 14. The movement of the spreader 36, the dispensing of the fabric F and the movement of the cutting device 20,24 are in response to command signals received from the controller 22. <IMAGE> (From GB2190930 A)					
					
39.	Knitted fabric edge spreading device used in spreading machine	CN202464867	2012-03-13	XU XIAOLIN	100 %
The utility model discloses a knitted fabric edge spreading device used in a spreading machine. A fabric edge spreading device is arranged on the spreading machine, and the edge spreading device is installed on two side edges of an inclined spreading part or a cutting component part of the spreading machine. In the fabric edge spreading device, a section of belt is wound on two pulley driving components, the outer surface of the belt is provided with a dentate rough surface, and the belts on the pulley driving components at the two side edges of the inclined spreading part or the cutting component are respectively transmitted towards the outer sides. The knitted fabric edge spreading device has the edge spreading effect, reduces the fabric consumption, saves the cost and improves the working efficiency.					
					

40.	Jig for spreading fabric and fabric spreading machine	JPH0586572	1992-03-16	MITSUBISHI ELECTRIC*	100 %
PURPOSE: To obtain a jig for spreading a fabric capable of correcting bending of a pattern and spreading the patterned fabric into a planar form on a cutting board and a fabric spreading machine. CONSTITUTION: A fabric 1 with the front surface up is nipped with a pawl 12 over the whole length in the starting end of the fabric 1, wound around a drum 18 so that the lines of vertical stripes of a pattern may be parallel to a cutting board 2 and then placed on a sponge 11 on the drum surface so as not to apply a tension to the fabric 1. When the terminal end of the fabric 1 is wound around the drum 18, a fixing rod 13 is used to press the terminal end. The fabric 1 is then shifted little by little so that a line 16 of the pattern may coincide with a reference line 15 stretched with reference line supporting tools 14 to correct the bending of the pattern. The drum is subsequently moved to a cutting place to remove the pawl 12. The fabric is spread while rotating the drum 18. The fabric is fed to a fabric spreading machine equipped with plural conveyors 21 and fabric pressing tools 25 corresponding thereto, and the bending of the pattern is optically sensed to determine data on bending conditions of the pattern. When the lines of the pattern arrive the fabric pressing tools 25, the fabric is fixed by operating the fabric pressing tools 25 to stop the opposing conveyors. Similar operations are performed for all the conveyors to correct the bending of the pattern.					
					
41.	Machine for producing low-ignition-propensity web, method for producing same, and method for producing low-ignition-propensity wrapping paper used in cigarettes	WO2011117998	2010-03-25	JAPAN TOBACCO*	100 %
There is provided a machine of manufacturing a low fire-spreading web, having a travel path (2) through which a paper web (W) travels; an applicator (3) that is interposed in the travel path (2) and used to apply a combustion inhibitor (7) onto the web (W); and a dryer (4) that dries the web (W) applied with the combustion inhibitor (7), further including a detector (9) that measures a parameter indicative of width of the web (W) that has passed through the dryer (4); and a controller (10) that controls a drying condition of the dryer (4) on the basis of a measurement result obtained by the detector (9) so that the width of the web (W) falls within an allowable range.					
					
42.	Textile fabric for preventing the penetration and the spreading of water in cables	CA2959214	2014-09-04	FREUDENBERG*	100 %
The invention relates to a textile fabric (1,1') for preventing the penetration and the spreading of water in cables, comprising at least one layer (2), which is at least partially covered by an absorbent material (3) and comprises pores (4), wherein the pores (4) can be at least partially closed under the effect of liquid due to a swelling of the absorbent material (3), and wherein the absorbent material (3) is bonded to the textile layer (2), at least in some areas, has a tensile strength with respect to the machine direction (MD) of greater than 50 N/5cm, measured according to DIN ISO 9073-3, and can be obtained by a method comprising the following method steps: treating a layer (2) containing pores (4) with a mixture containing a polymerizable monomer or oligomer and a cross-linking agent and, as precursor for the absorbent material (3) a wetting agent and an initiator, and polymerization of the monomer or oligomer to the absorbent material (3) under formation of a bonded connection between the absorbent material (3) and the layer. The textile fabric has an air permeability according to DIN EN ISO 9237 in the dry state of greater than 200 dm3/(m2s).					
					
43.	Tubular fabric device of spreading machine	CN104278468	2014-10-14	SPREAD AUTOMATION TECHNOLOGY*	100 %
The invention discloses a tubular fabric device of a spreading machine. The tubular fabric device mainly comprises a cloth supporting hanger (6), and a driving roller (18) and a driven roller (19) which are mutually engaged, wherein a framework is formed by connecting a left lower side wall (25), a middle lower side wall (7), a right lower side wall (12), a vertical square beam (8a) and a horizontal square beam (8b); the driving roller (18) and the driven roller (19) are mounted at the L-shaped bottoms of the left lower side wall (25) and the middle lower side wall (7); a driven roller shaft core (19a) is inserted into horizontal transverse grooves (26) in the L-shaped bottoms of the left lower side wall (25) and the middle lower side wall (7); an eccentric cam part of a pull-open wrench (20) overcomes the elastic force of an extension spring (24) through a driven roller gear (19e) and a rack (16) so that the driven roller (19) moves frontwards; an upper transmission shaft (9), an input tooth-shaped belt wheel (10) and an input tooth-shaped belt (31) are arranged at the upper part of the right lower side wall (12) and a lower transmission shaft (14) is arranged at the lower part of the right lower side wall (12); and the lower transmission shaft (14) is connected with a driving roller shaft core (18a) by a shaft coupler (15). According to the tubular fabric device of the spreading machine, the tubular fabric device can be conveniently hung on or taken off from the common spreading machine so that the common spreading machine can be used for spreading a tubular fabric.					
					
44.	Lifting control system for fabric spreading structure	CN204198105	2014-10-22	BULLMER ELECTROMECHANICAL TECHNOLOGY*	100 %
The utility model provides a lifting control system for a fabric spreading structure and belongs to the technical field of fabric spreaders. The system solves the problem of existing structures that height is not adjusted in real time, descending speed and height are both preset, and therefore misoperation occurs easily in actual use. The system comprises a fabric spreading platform, wherein a fabric spreading mechanism is arranged on the fabric spreading platform. The system is characterized in that the fabric spreading mechanism comprises a left side plate, a right side plate and a swing rod hinged between the left side plate and the right side plate, the left side plate and the right side plate are each provided with a front convex rod and a rear convex rod, the fabric spreading mechanism is driven by a lifting motor to rise and fall, and the lifting motor is controlled to work by a controller monitoring the height of the swing rod. The system has the advantages that operation is achieved automatically, manual operation is reduced, using stability, reliability and accuracy are improved, and misoperation is avoided.					
					
45.	Clamping device of fabric spreader	KR20170045143	2016-11-30	BMO*	100 %
The present invention relates to a clamping device of a fabric spreader, and is a technique for a clamping device, of a fabric spreader, fixing a spreading fabric so as to be cut. The clamping device of a fabric spreader, according to the present invention, is characterized in that a fabric spreader having a cutting unit, mounted thereon, for spreading and cutting rolled fabric, comprises: a fabric support mounted at the front side of the fabric spreader so as to be positioned at the rear side of the cutting unit; and a fabric clamping unit mounted, at the fabric spreader, so as to be rotatable at a predetermined angle, with respect to an axis, rotating to the front side after passing the lower part thereof from the rear side of the fabric spreader so as to fix a fabric such that the fabric comes into close contact with the lower part of the fabric support.					
					
46.	Cloth spreading machine and cloth spreading method	CN103662959	2012-09-18	LONG PARK & EAGLE INTELLIGENT TECHNOLOGY*	100 %
The invention provides a cloth spreading machine and a cloth spreading method. Two pressing cloth pressing strips are arranged on one side of a pressing cloth device facing a cutter clamping cloth device, an adjustable interval for clamping cloth is reserved between an upper pressing cloth pressing strip and a lower pressing cloth pressing strip, two clamping cloth pressing strips are arranged on one side of the cutter clamping cloth device facing the pressing cloth device, an adjustable interval for clamping the cloth is reserved between an upper clamping cloth pressing strip and a lower clamping cloth pressing strip, and a plurality of layers and columns of cloth can be sequentially clamped through the pressing cloth pressing strips and the clamping cloth pressing strips to achieve one-time cloth laying of the plurality of layers and columns of cloth. The cloth is clamped through the pressing cloth pressing strip and the clamping cloth pressing strips, the plurality of layers and columns of cloth can be clamped in one time and can be simultaneously laid, cloth laying efficiency of the cloth spreading machine is improved, the utilization rate of the machine is improved, and working efficiency is improved.					
					

47.	Fabric cutting machine of cutting all -in -one is spread to full -automatic cloth	CN206375488	2017-01-10	CHONGQING LEISAINUO POWER TECHNOLOGY*	100 %
The utility model discloses a fabric cutting machine of cutting all -in -one is spread to full -automatic cloth, including fabric cutting machine frame and cloth cutting knife subassembly, characterized by: the fabric cutting machine frame is long bar -type texture, still includes ball, ball slide and step motor, the rectangular shape of ball for arranging along fabric cutting machine frame length direction, and both ends pass through the bearing and install in the fabric cutting machine frame, ball's one end drive is connected with step motor, and one side that the last ball slide that has cup jointed of ball, ball slide deviate from ball is vertical installation, the cloth cutting knife subassembly includes tool bit supporting box, tool bit, tool bit connecting rod, tool bit cutting vibration mechanism and tool bit steering mechanism, tool bit supporting box fixed mounting is on vertical installation face, the vertical slip of tool bit connecting rod runs through the bottom of tool bit supporting box, and lower extreme fixed mounting has vertical tool bit. Above -mentioned fabric cutting machine to tailor the effect better, can tailor out comparatively complicated plane geometry figure, have the better performance of tailoring.					
48.	Method for preparing fabric for cutting	GB0028342	2000-11-21	CYTEC INDUSTRIES CYTEC TECHNOLOGY*	100 %
A method for cutting fabric comprising dispensing a trace of a resin composition on the fabric surface to provide a desired fabric cutting line for cutting the fabric along the trace of dispensed resin with cutting means, wherein the resin composition is stable under dispensing and cutting conditions and is characterised by a viscosity in the range 2000-1 Pa.s (18 DEG C) and tack or softening at ambient or elevated temperature in the range 20 to 130 DEG C; a resin composition for use in the method comprising at least one substantially stable resin in substantial absence or any curing agent, catalyst or cross linking agen characterised by viscosity in the range 2000 - 1 Pa.s (18 DEG C) and tack or softening at ambient and/or elevated temperature; method for the preparation thereof; a method for blending thereof; apparatus for use in the method; a method for dry fibre moulding using the method and composition; a preform obtained with use of the method and composition; a method for injecting or infusing the preform with curable matrix resin; the curable injected or infused preform resin; a method for curing thereof; and a cured composite obtained with the method.					
49.	Three-dimensional knitted fabric capable of spreading interval between upper knitted fabric and lower knitted fabric and method for producing the same	JP2006291388	2005-04-11	SUMINOE*	100 %
PROBLEM TO BE SOLVED: To provide a three-dimensional knitted fabric used by largely spreading interval, especially between an upper knitted fabric and a lower knitted fabric and packing liquid, powder, gas, etc., in the interior in the three-dimensional knitted fabric connecting the upper knitted fabric and the lower knitted fabric mutually separately arranged with a connecting yarn. SOLUTION: In the three-dimensional knitted fabric, a connecting yarn for connecting a space between upper and lower knitted fabrics is knitted from a part for knitting into knitted fabrics and fixing the knitted fabrics and a structure for inserting into a sinker loop of a connecting yarn-retaining yarn without knitting the connecting yarn into the knitted fabrics and the connecting yarn-retaining yarn composed of a soluble fiber is dissolved and the upper and lower knitted fabrics are separated in a step which becomes a final product. As a result, the distance between the upper and lower knitted fabrics are remarkably spread. COPYRIGHT: (C)2007,JPO&INPIT					
50.	Manually controllable machine such as a fabric cutting machine	GB8504773	1984-04-09	GUNTER O STUMPF* STUMPF G O	100 %
A manually controllable machine for cutting out or notching fabric has a supporting foot (2) for supporting the machine on a cutting table (). The foot (2) has a flat face (15) on which the machine rests. To reduce the effort required to displace the machine, at least one opening (25) of at least one channel (16 to 21) is provided in the face (15), the channel (16 to 21) being connected to a source of compressed air.					
51.	Aio (all-in-one) machine for cutting and spreading	CN204151596	2014-09-30	HEFEI AORUI DIGITAL CONTROL SCIENCE & TECHNOLOGY*	100 %
The utility model discloses an AIO (all-in-one) machine for cutting and spreading. The AIO machine comprises a machine body (1), a rectangular working table (2) and a cutting head (4), and further comprises an infrared scanning device (6); the infrared scanning device (6) comprises a vertically downward infrared transceiver (61), a support (62) and a computer, wherein one end of the support (62) is fixedly connected to a transverse connecting rod (5), and the other end of the support (62) is fixedly connected to the infrared transceiver (61). Compared with the prior art, the real-time detection and control on the accuracy of cutting work can be realized; furthermore, the AIO machine has the capacity of directly and precisely processing complicate patterns, and has the advantages of high efficiency and strong processing capacity.					
52.	Tubular fabric device for spreading machine	CN204112071	2014-10-14	SPREAD AUTOMATION TECHNOLOGY*	100 %
The utility model discloses a tubular fabric device for a spreading machine. The tubular fabric device mainly comprises a fabric supporting hanger (6), as well as a drive roller (18) and a driven roller (19) which are meshed with each other. A left-lower side wall (25), a middle-lower side wall (7), a right-lower side wall (12), a vertical square beam (8a) and a flat square beam (8b) are connected to form a framework, wherein the drive roller (18) and the driven roller (19) are mounted at L-shaped bottoms of the left-lower side wall (25) and the middle-lower side wall (7), a central spindle (19a) of the driven roller is inserted into horizontal cross slots (26) at the L-shaped bottoms of the left-lower side wall (25) and the middle-lower side wall (7), an eccentric cam part of a handle (20) is pulled open to overcome elasticity of an extension spring (24) by virtue of a gear (19e) of the driven roller and a rack (16), so that the driven roller (19) moves forward, an upper transmission shaft (9), an input tooth-shaped belt pulley (10) and an input tooth-shaped belt (31) are arranged at the upper part of the right-lower side wall (12), and an lower transmission shaft (14) is arranged at the lower part of the right-lower side wall (12), and is connected with a central spindle (18a) of the drive roller by virtue of a coupler (15). The tubular fabric device can be conveniently hung or taken down from a common spreading machine, so that the common spreading machine can be used for spreading a tubular fabric.					
53.	Thread cutting unit having a rotatably driveable cutting knife and loop spreading plate for a sewing machine	JPH0259784	1988-10-21	SINGER*	100 %
A thread cutting unit cooperating with the bed of a sewing machine includes a lower shaft, a cutting knife and a loop spreading plate respectively fixed to the lower shaft and positioned adjacent to the hook. The thread cutting knife and the loop spreading plate cross each other in a space between the hook and the throat plate. The thread cutting unit is provided with a thread cutting driving unit which comprises a thread cutting knife driving shaft, a loop spreading plate driving shaft, a rotational motion transmission device, a thread cutting supporting member carrying thread cutting knife, a first turnable interlocking mechanism and a second turnable interlocking mechanism. The thread cutting supporting member is rotatably supported on the bed.					
54.	Apparatus for elevating fabric for use in spreading machine	KR101390472	2013-12-18	SEMYEONG PREC*	100 %
The present invention relates to a fabric lifting device for a spreading machine, which lifts fabric and transfers the fabric to a spreading machine on a work table. The fabric lifting device comprises a main body which has a pair of longitudinal frames which are spaced apart and parallel to each other, a lift member which is installed to be lifted and lowered between the pair of longitudinal frames and which is loaded with fabric, and a lift member operation unit which is installed in the main body to enable the lift member to be lifted and lowered. The fabric lifting device easily mounts heavy fabric on the spreading machine.					

