United States Patent

Grimm et al.

[15] **3,645,524**

[45] **Feb. 29, 1972**

[54] EDGE ALIGNMENT ASSEMBLY FOR CLOTH-SPREADING MACHINE

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[22] Filed: **June 8, 1970**

[21] Appl. No.: **44,119**

[52] **U.S. Cl.** **270/31**

[51] **Int. Cl.** **B65h 29/46**

[58] **Field of Search** 270/30, 31; 242/57.1

[56] **References Cited**

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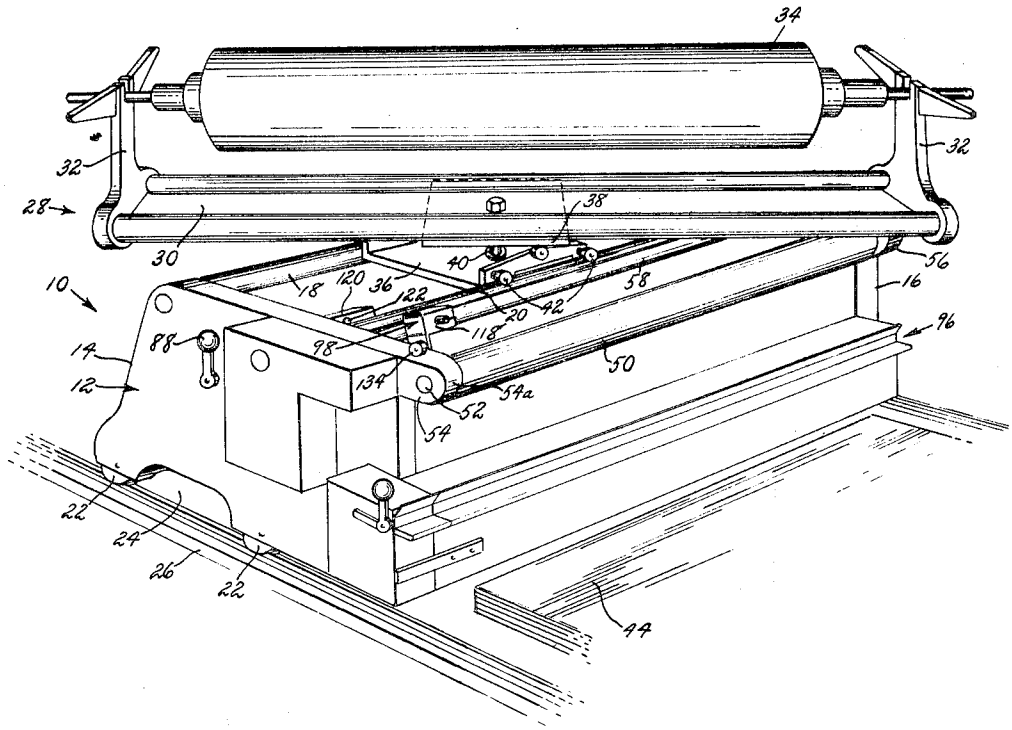
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[57] **ABSTRACT**

In a turntable fabric spreading machine in which fabric is drawn from a supply roll mounted on a turntable structure and fed through the machine to be deposited in layers on a table surface, the turntable structure is mounted on a carriage for lateral movement thereon and is driven in such lateral movement by a reversible motor mounted beneath said turntable structure and cooperating with a chain extending across the width of said carriage, a photoelectric sensing member is mounted on the carriage for scanning the edge of the fabric feeding through the machine, and is operatively connected to the motor for energizing the same to shift the turntable structure and fabric roll automatically in response to the sensing of a deviation in the lateral position of the fabric edge. The sensing means is movably mounted on the carriage by a linkage manually operable to shift the sensing member to a retracted position when the fabric is to be initially threaded through the machine.

8 Claims, 7 Drawing Figures



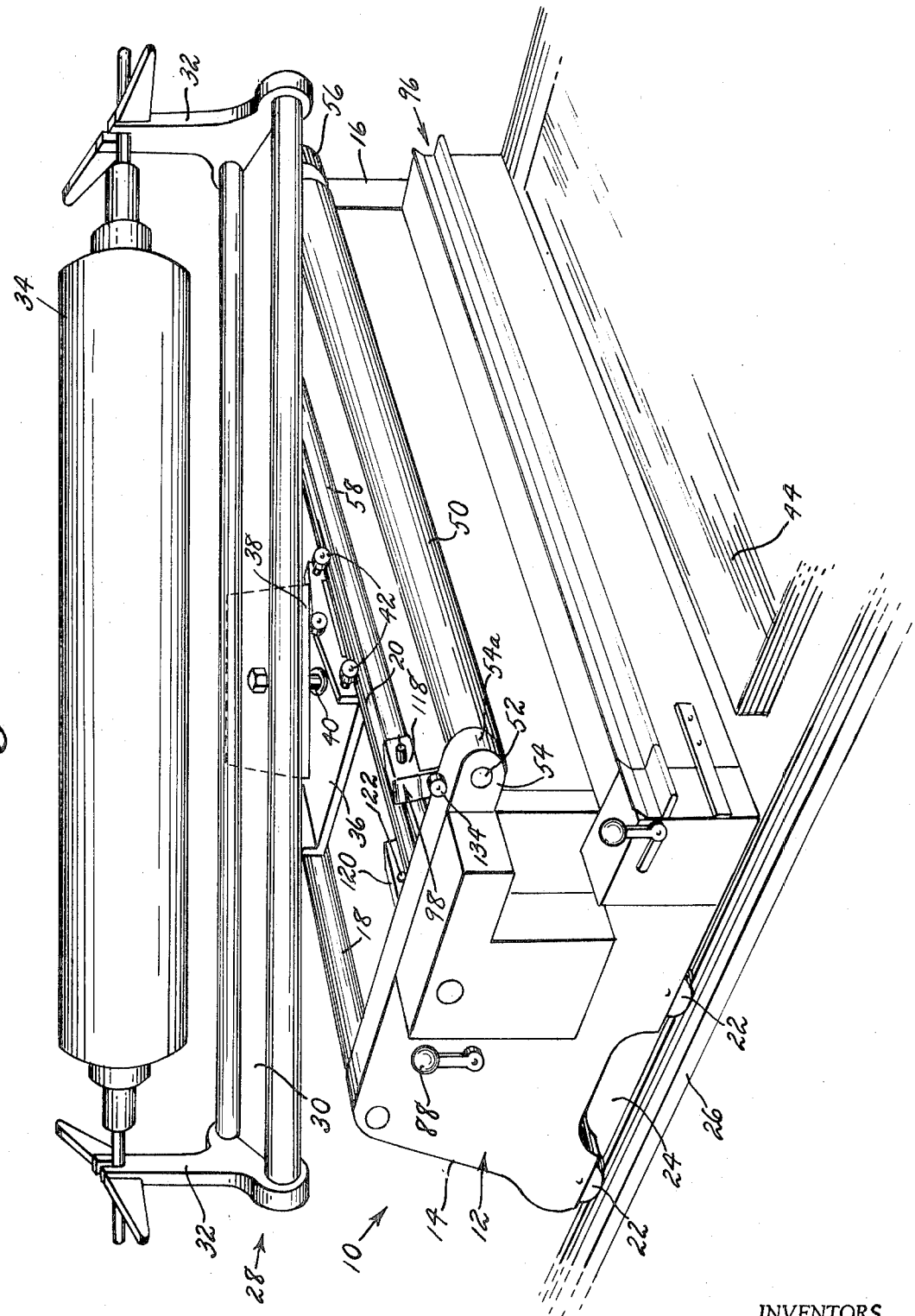


Fig. 1

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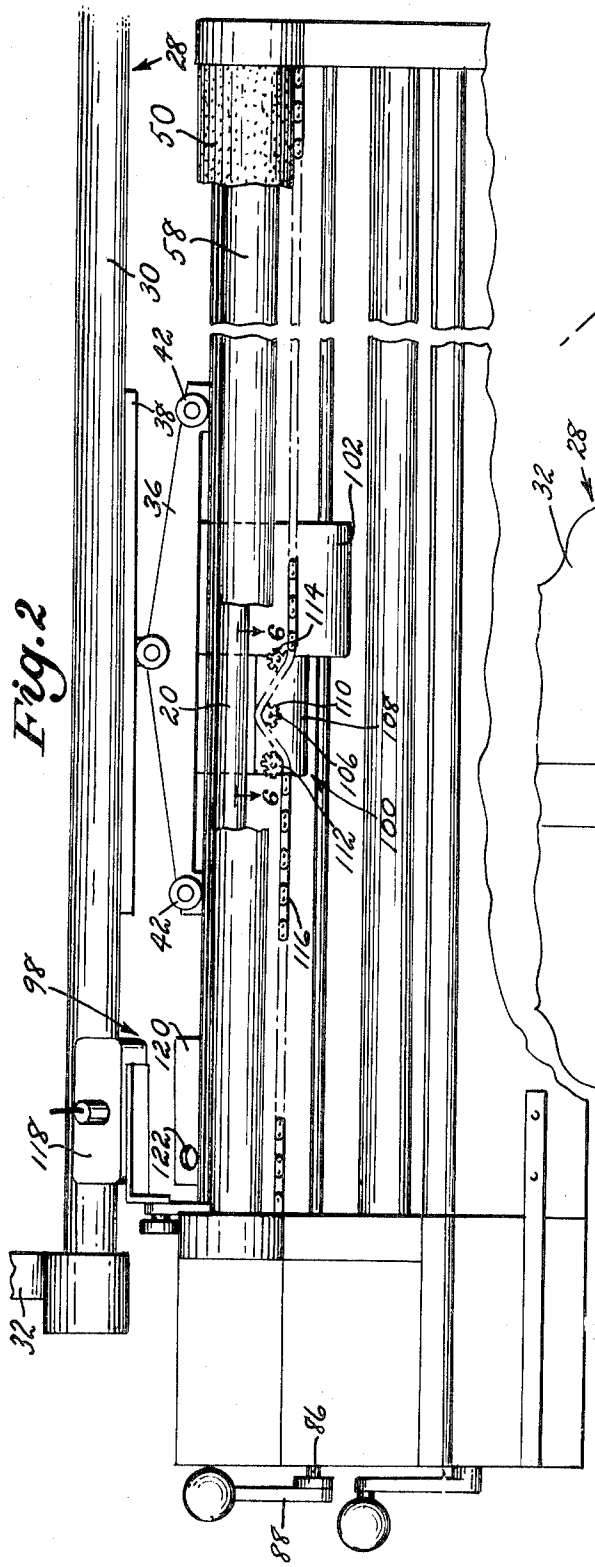


Fig. 2

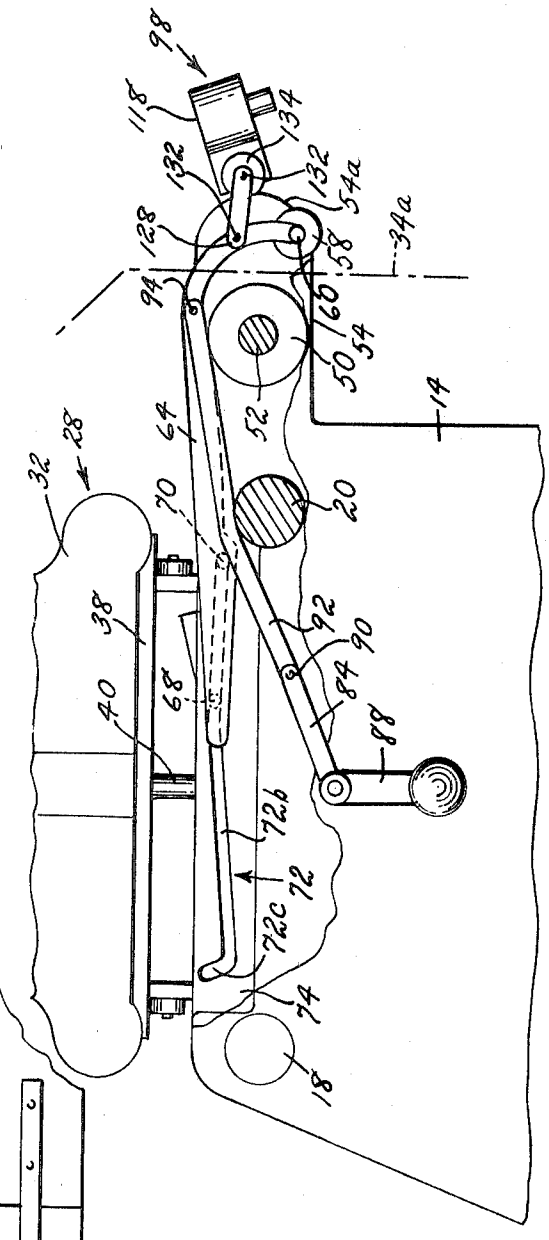


Fig. 3

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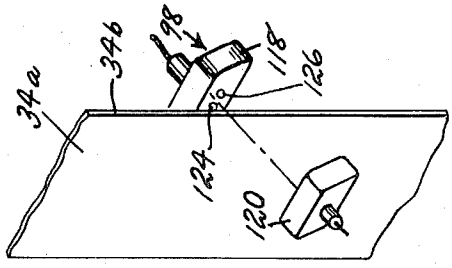


Fig. 7

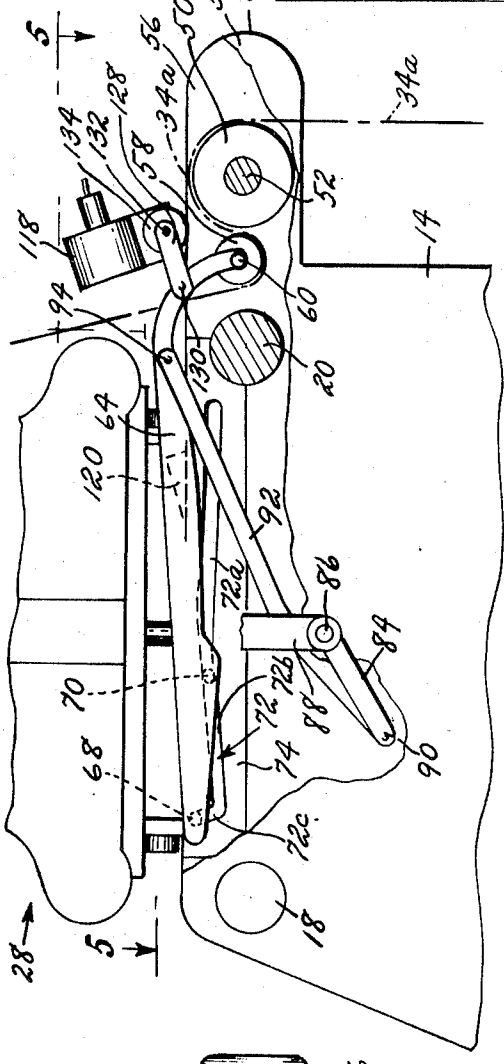


Fig. 4

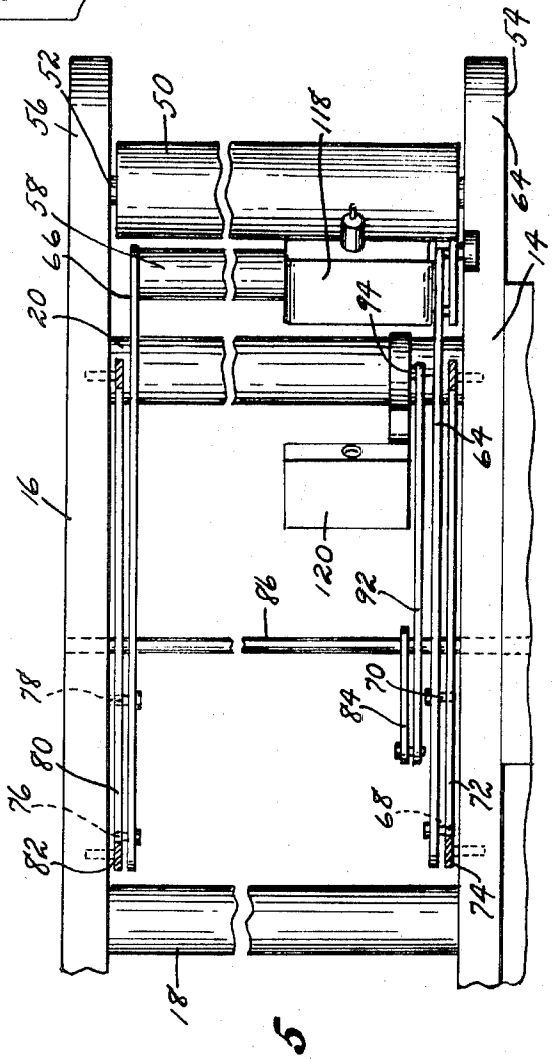


Fig. 5

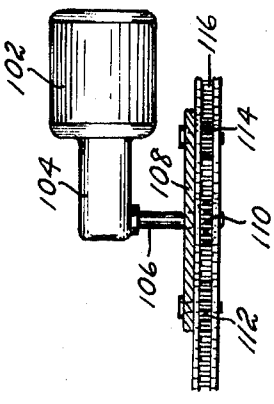


Fig. 6

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EDGE ALIGNMENT ASSEMBLY FOR CLOTH-SPREADING MACHINE

The present invention relates to a turntable fabric-spreading machine, and in particular to a novel and improved means for scanning the edge of material fed through the machine, and automatically shifting the fabric laterally to maintain the scanned edge on a preselected line.

In turntable spreading machines, a supply of fabric, usually in roll form, is mounted upon the turntable section, and is laid down upon the table section in superimposed sheets as the machine carriage is moved back and forth over the table surface. At each end of the run, before the turntable section is rotated on the carriage, the material is cut to separate the laid-down sheet. There is often provided a positive feed roller about which the fabric is trained as it leaves the supply roll. The positive feed roller is driven in response to movement of the carriage back and forth over the table, so as to draw the fabric from the supply roll and feed it through the cutting assembly to the surface of the table.

In order for the positive feed roller to properly grip the fabric, an idler roller is mounted in close proximity thereto. The fabric passes around the idler roller and then around the positive feed roller, engaging a large portion of the circumference of the latter. Because these rollers are normally in close proximity, it is virtually impossible to feed the fabric around and between the two rollers in this position. The idler roller is therefore mounted on a movable frame so that it can be moved away from the positive drive roller for initial feeding of the fabric therebetween. Such a movable frame arrangement is shown and described in our copending U.S. Pat. application Ser. No. 21,047, filed Mar. 19, 1970.

In turntable machines, the turntable structure is usually mounted for lateral movement on the carriage so that its position can be selectively shifted to determine the position of the laid-down layers of fabric on the table, regardless of the width of the fabric roll. It often happens, however, that the fabric on the roll is not wound evenly, so that as the fabric is drawn off the roll and fed through the machine to the table surface, the lateral position of the fabric shifts. As a result, the layers of fabric deposited on the table are not aligned, but rather their edges are considerably out of registry with each other.

To eliminate this difficulty, spreading machines have hitherto been devised with a motor for shifting the position of the turntable structure on the carriage, and edge scanning means operatively connected to the motor for actuating the same upon sensing a deviation in the lateral position of an edge of the fabric fed through the machine so that the motor shifts the fabric roll sufficiently to compensate for such deviation. This fabric aligning structure operated satisfactorily, but were subject to several disadvantages. For one thing, the motor was mounted on the carriage, and in order to be kept out of the way of the operating parts of the machine, was mounted on the outside of the carriage where it was exposed to contact with the operator, and thus tended to cause injury during its operation. It addition, the edge-scanning means was necessarily mounted proximate to the positive feed roller so as to scan the position of the edge of the fabric as it was fed to said roller. In this position the scanning means was so located that it obstructed the path of the fabric feed, and made it difficult to initially thread the fabric around the positive feed roller and through the machine.

It is an object of the present invention to provide motor drive means for the turntable structure, the motor of which is mounted centrally on the under surface of the turntable structure rather than on the carriage. Thus the motor at all times is covered by the body of the machine and cannot be contacted by the operator.

Another object of the invention is to provide drive means of the character described in which the motor is adapted to shift the turntable laterally in either direction by coaction with a single length of chain spanning the width of the carriage. Such arrangement is economical in manufacture, easy to install and replace in the machine, and less subject to wear and breakage than the endless chain arrangements presently employed.

A further object of the invention is the provision of a turntable spreading machine of the character described in which the fabric edge scanning means is mounted proximate to the positive drive roller so as to be in proper position to scan the edge of the fabric and in which means are provided to move the scanning means to a retracted position remote from the positive drive roller to provide clearance for the threading of the fabric about said roller.

A further object of the invention is the provision of a turntable spreading machine of the character described in which the scanning means is mounted on the same movable frame which mounts the idler roller, so that the frame serves the dual function of moving both the idler roller and scanning means away from the positive drive roller.

In accordance with the present invention there is provided a fabric spreading machine including a carriage movable back and forth over a table surface, a turntable section mounted on the carriage and comprising a dolly mounted for lateral movement on the carriage, a platform rotatably mounted on the dolly and having means for supporting a roll of fabric thereon, and means for feeding fabric from said roll and guiding said fabric through said carriage to the table surface.

Reversible drive means is provided for moving the dolly laterally of the carriage so as to shift the position of the fabric roll relative to the carriage and table surface, such drive means comprising a reversible motor mounted on the dolly and driving a sprocket meshing with a single length of chain secured at its opposite ends to the carriage and extending across the width thereof. Scanning means are also provided for scanning one edge of the fabric fed from said roll, the scanning means being operatively connected to the motor for energizing the latter in response to lateral deviation of the scanned fabric edge, in such a manner that the fabric roll is shifted by the motor in such direction and to such an extent as to compensate for said lateral deviation.

The scanning means includes a light source and a scanning member movably mounted on the carriage for movement between an operative edge-scanning position and a retracted position spaced well forwardly of the light source and providing access for the threading of the fabric through the machine.

Additional objects and advantages of the invention will become apparent during the course of the following specification when taken in connection with the accompanying drawings, in which:

FIG. 1 is a front perspective view of a turntable spreading machine made in accordance with the present invention with the turntable structure shown partially rotated;

FIG. 2 is a front elevational view of the upper carriage portion of the machine of FIG. 1, with parts broken away to reveal internal structure;

FIG. 3 is a side elevational view of the upper portion of the carriage shown in FIG. 2, showing the components of the fabric-feeding means and edge scanning means in their retracted positions, portions of the machine frame being broken away to illustrate inner constructional details;

FIG. 4 is a side elevational view of the upper portion of the carriage similar to FIG. 3, but showing the parts thereof in their operative positions;

FIG. 5 is a top plan view of the machine carriage taken substantially along line 5—5 of FIG. 4, with the central portion of the machine being broken away for convenience of illustration;

FIG. 6 is a top plan view of the drive motor and a portion of the chain associated therewith, as viewed along line 6—6 of FIG. 2; and

FIG. 7 is a perspective schematic view showing the relationship of the scanning means to the fabric edge which it scans.

Referring in detail to the drawings, there is shown in FIG. 1 a cloth spreading machine 10 of the turntable type, which includes a carriage 12 formed of a pair of side frames 14 and 16 connected in spaced relationship by tubular cross rods 18 and 20. Each of the frames 14 and 16 is mounted on a pair of wheels, the frame 14 being mounted on flanged wheels 22

which are guided for longitudinal movement along a table 24 by a rail 26 mounted on the table. The opposite frame 14 is also mounted on the usual wheels (not shown) which roll along the table surface.

Mounted on the carriage 12 is a turntable section 28 comprising a platform 30 mounting a pair of spaced uprights 32 between which a roll of fabric 34 may be rotatably mounted. The mounting of the turntable section 28 on the carriage 12 is effected by means of the usual pivot mechanism in the nature of a dolly 36 upon which a plate 38 is mounted for rotation by pivot pin 40. The turntable platform 30 is secured to plate 38, and may thus be revolved relative to the carriage 12 to turn the roll 34 in opposite directions. The turntable section 28 is shown partially rotated in FIG. 1, but in feeding of the fabric from roll 34, the platform 30 would be in registry and longitudinally aligned with the carriage 12. Conventional latch means (not shown) may also be provided to lock the turntable section 28 in either of its two reversed, aligned positions.

The dolly 36 has at each of its four corners a projecting roller 42, the rollers being so located that the two rollers 42 at one side of the dolly ride upon the tubular cross rod 20, while the two rollers at the opposite side of dolly 36 ride upon the tubular cross rod 18. The cross rods 18 and 20 thus serve as tracks for rolling movement of the dolly 36 in opposite directions therealong, such movement of the dolly carrying the turntable section 28 and the cloth roll 34 supported thereon laterally of the carriage 12 and of the table 24.

The fabric, in sheet form, is drawn from the roll 34 through the machine 10, and is fed by the latter to the surface of table 24, where it is laid down in a uniform stack of cut sheets or layers 44 as the carriage 12 is rolled back and forth along the table.

For purposes of drawing the fabric from the supported roll 34 and feeding it through the machine to the table, a positive drive roller 50 is mounted at the front upper end of carriage 12 by means of a shaft 52 mounted between a pair of forwardly projecting extensions 54 and 56 of the respective side frames 14 and 16. The roller 50 is coupled in the usual manner, by a series of chains and sprockets (not shown) to one of the wheels of carriage 12 in such a manner that rotation of said wheels, as the carriage rolls along the table, causes corresponding rotation of the roller 50. However, a one-way clutch mechanism, of conventional construction, is provided between roller 50 and its drive sprocket, so that said roller 50 always rotates in a clockwise direction, regardless of the direction of travel of the carriage 12. The aforementioned drive and clutch mechanism for roller 50 is conventional and well-known, and is therefore not illustrated herein.

The positive drive roller 50 has an outer circumferential surface which is abraded or knurled to grip the fabric material passing thereover. In order to provide the necessary gripping action, it is necessary for the fabric to extend about a substantial portion of the circumference of the roller 50, and for this purpose, fabric retaining means is provided, including an idler roller 58 which is normally mounted in close proximity to the positive feed roller 50, as shown in FIGS. 4 and 5.

The idler roller 58 is rotatably mounted upon a shaft 60 which connects the front ends of a pair of spaced arms 64 and 66. Each of the arms 64 and 66 is elongated and the arm 64 has projecting from its rear end portion a pair of spaced pins 68 and 70 which engage and ride in an elongated cam slot 72 formed in a plate 74 secured to the inner surface of frame 14, as shown in FIG. 4. In a similar manner, the arm 66 has projecting pins 76 and 78 which extend into and ride in a cam slot 80 formed in a plate 82 secured to the inner surface of frame 16.

A lever 84 is fixedly mounted or keyed to a cylindrical shaft 86 which extends transversely between the frames 14 and 16 and is journaled in the latter. The shaft 86 projects beyond the outer surface of frame 14, as shown in FIG. 2, and terminates in an operating handle 88 located outside the confines of the carriage 12 where it may be grasped and manually turned for rotating shaft 86.

The free end of lever 84 is connected by a pivot pin 90 to one end of an elongated connecting link 92, the other end of which is connected by a pivot pin 94 to an intermediate point on the arm 64. A similar link and lever arrangement may be provided at the other side of the carriage 12 adjacent the frame 16, for connection to the arm 66, but this is not required for the operation now to be described.

In the operative position of the fabric retaining means, shown in FIGS. 1, 4 and 5, the idler roller 58 is located proximate to and inwardly of the positive drive roller 50 in proper position to cause the fabric to wrap around the upper circumferential surface of the roller 50, as presently to be described in greater detail. In this operative position, the handle 88 is upstanding as shown in FIG. 3, the lever 84 is inclined downwardly and rearwardly from shaft 86, and the connecting link 92 is inclined upwardly and forwardly toward the arm 64, forming an acute angle with the lever 84. The pins 68 and 70 on arm 64 are located at the rear end portion of slot 72, and the pins 76 and 78 of the opposite arm 66 are similarly located at the rear end portion of slot 80.

In this operative position of arms 64 and 66, the idler roller 58 is securely held inwardly of and close to the positive drive roller 50 in the position shown in FIG. 4, so that the fabric 34*a*, drawn from roll 30, passes beneath the idler roller 58 and then up and over the positive drive roller 50 and then downwardly through the front portion of the machine to the table 26. As shown, the fabric 34*a* wraps around a substantial portion of the circumference of the roller 50, so as to make good gripping contact therewith.

In order to permit the fabric to be fed around the positive feed roller 50, the guide roller 58 is mounted to be moved forwardly of said roller 50. For this purpose, the handle 88 is manually turned, thereby bringing the fabric retaining means to its retracted, inoperative position in which the idler roller 58 is spaced well forwardly of the roller 50 and is clear thereof. Specifically, the handle 88 is turned clockwise from its upstanding position of FIG. 4, rotating the shaft 86 and turning its connected lever 84 in the same clockwise direction, the handle, shaft and lever operating in unison as a crank in this movement. As the lever 84 turns toward the forwardly and upwardly inclined position shown in FIG. 3, it moves the connecting link 92 upwardly and forwardly, said link 92 in turn lifting the forward portion of arm 64 and moving it forwardly.

The cam slots 72 and 80 cooperate with the connecting link 92 to guide the idler roller 58 mounted at the forward end of arms 64, 66 in a compound movement about the positive drive roller 50. Considering cam slot 72 shown in FIG. 4, for example, it will be seen that said slot has an upwardly and rearwardly inclined forward section 72*a*, and an downwardly and rearwardly inclined rear section 72*b* which terminates in a short upstanding extension section 72*c*. In the operative position of FIG. 4, the pin 68 is located at the top of the upstanding extension section 72*c*, which locks the arm 64 securely in its operative position. When the handle 88 is initially turned, the connecting link 92 begins its movement by lifting the forward end portion of arm 64, causing said arm to turn so that the pin 68 moves to the bottom of slot extension section 72*c* and into registry with slot section 72*b*. This initial turning movement of arm 64 raises the idler roller 58 until it is located above the level of roller 50.

Further turning of handle 88 causes pins 68 and 70 to slide upwardly and forwardly through slot section 72*b* under the actuating force of connecting link 92. The roller 58 is thus moved upwardly and forwardly with relation to roller 50. Finally the pins 68 and 70 enter slot section 72*a* which guides the idler roller 58 further forwardly and slightly downwardly. In the fully retracted position of the fabric retaining means shown in FIG. 3, the pin 70 is in engagement with the forward end of slot section 72*a* and the connecting link 92 is resting upon crossbar 20, thus locking the arms 64 and 66 in this retracted position. The idler roller 58 is located forwardly of the positive drive roller 50. The lever 84 and link 92 have moved through an axially aligned position in a toggle action.

In the retracted position of FIG. 3, fabric 34*a* is drawn off roll 34 and easily dropped down between the spaced rollers 50 and 58, the fabric extending between the spaced arms 64 and 66. The leading end of the fabric is then fed downwardly through a cutting assembly 96 at the forward lower end the machine, and to the surface of table 26. This cutting assembly 96 is illustrated and described in detail in our copending U.S. Pat. application Ser. No. 21,047, filed Mar. 19, 1970, and will therefore not be described herein. The handle 88 is now turned counterclockwise to the position of FIG. 4, causing the idler roller 58 to follow the reverse movement to that previously described, in returning to the operative position. During this return movement, the idler roller 58 engages the fabric 34*a* and draws a portion rearwardly and downwardly, forming thereabout an arcuate bight adjacent to and rearwardly of the roller 50, as shown in FIG. 4. As it leaves roller 58, the fabric 34*a* wraps around the upper surface portion of positive drive roller 50 as shown in FIG. 4. The idler roller 58 thus holds the fabric 32 in firm engagement with the abraded surface of positive drive roller 50, and as the latter rotates in a clockwise direction in response to rolling movement of the carriage 12 back and forth over the table, the roller 50 draws the fabric from roll 34 and feeds it through the cutting assembly 96 to the table surface.

As previously indicated, the dolly 36 which carries the turntable section 28, is mounted on rollers 42 which ride on the cross rods 18 and 20, so that the turntable section 28 can be moved laterally upon the carriage 12. Such movement shifts the fabric roll 34 relative to the table 24, and this movement is desirable in order to insure that the cut layers of fabric 44 laid down on the table are in registry with each other. It often happens that the fabric is unevenly wound on the rolls, so that it feeds unevenly through the spreading machine, and as the layers of cloth are laid down on the table surface, the edges thereof are not in alignment. In accordance with the present invention, means are provided to automatically control the position of one side edge of the fabric being spread by scanning this edge and shifting the fabric roll relative to the table surface to compensate for variances in the position of this edge as the fabric is drawn from the roll. This automatic control means generally comprises edge scanning means 98, and motorized drive means 100 for the turntable section 28, the details of which will now be described.

The drive means 100 includes a reversible electric motor 102 which is mounted on the bottom surface of dolly 36, as shown in FIG. 2. The motor 102 is coupled to a gear reduction mechanism 104 having a drive shaft 106 projecting centrally from the housing thereof. As shown in FIG. 6, the shaft 106 extends through a mounting plate 108 secured to the underside of dolly 36, and a sprocket 110 is mounted on the free end of shaft 106. Also mounted on the plate 108 are a pair of idler sprockets 112 and 114. A single length of chain 116 is mounted at each of its opposite ends on the side frames 14 and 16, the chain extending beneath the idler sprocket 112, above the drive sprocket 110, and beneath the idler sprocket 114, and meshing with the teeth of each of these sprockets. The idler sprockets 114 maintain the chain 116 taut and in firm meshing contact with the drive sprocket 110.

When the motor 102 is energized to turn drive sprocket 110 in a clockwise direction, as viewed in FIG. 2, the dolly 36 is driven toward the left, its rollers 42 riding on the carriage cross rods 18 and 20. The fabric feeding from roll 34 is thus moved toward the side frame 14. When the reversible motor 102 is energized to turn the drive sprocket 110 in the opposite or counterclockwise direction, the fabric is moved in a direction away from the side frame 14.

The edge scanning means 98 includes a scanning member 118 mounted on the forward end of the arm 64 which mounts idler roller 58, and a housing 120 enclosing an electric bulb or other light source whose beam of emitted light is projected through a window 122 (FIGS. 1 and 2). As shown in FIG. 7, the scanning member 118 contains a pair of spaced photoelectric cells 124 and 126 which are sensitive and responsive to the light emitted from the housing 120.

As shown in FIGS. 3 and 4, the scanning member 118 is mounted on the arm 64 by means of a link 128 connected by pivot pin 130 to the curved forward end of arm 64 immediately behind idler roller 58, and connected by pivot pin 132 to the scanning member 118. The pivot pin 132 also rotatably mounts a roller 134 which normally rests upon the flat upper surface of extension 54 of side frame 14.

In the operative position of the fabric-guiding means, as previously described, the arm 64 locates the scanning member 118 in the position shown in FIG. 4, in which said scanning member faces, and is located a short distance forwardly of the light housing 120. The scanning member 118 is also laterally positioned so that when the fabric roll 34 is properly mounted and adjusted, the fabric 34*a* feed therefrom between the light housing 120, with the edge 34*b* of fabric 34 passing between the photoelectric cells 124 and 126 in the manner shown in FIG. 7.

The scanning member 118 is operatively connected to the reversible motor 102 of the drive means 100 by an electrical circuit which is conventional and well known. Specifically, the photoelectric cell 124 is connected to one armature of the motor 102 through a relay switch in such a manner that if light from the housing 120 impinges on cell 124, the motor 102 is energized to drive the fabric roll 34 to the left as viewed in FIG. 1, that is to say, toward the side frame 14. On the other hand, the photoelectric cell 126 is connected to the other armature of motor 102 through a relay switch in such a manner that if cell 126 does not receive light from the housing 120, the motor 102 is energized to drive the fabric roll 34 in the opposite, right-hand direction, that is away from the side frame 14.

When the fabric 34*a* is properly feeding from roll 34 so that its left-hand edge 34*b* is passing between the photoelectric cells 124 and 126 as shown in FIG. 7, the cell 124 is covered by the fabric 34*a* and the cell 126 is uncovered and is receiving light from housing 120. In this condition, the motor 102 is deenergized. If the fabric is wound unevenly from roll 34 so that it uncovers photocell 124, the motor 102 is energized in a direction to move the fabric 34*a* to the left until it again covers photocell 124. Similarly, if the unevenly wound fabric covers photocell 126, the motor 102 is energized in the opposite direction so as to move the fabric 34*a* to the right until it again uncovers said photocell 126.

When the scanning member 118 is in its operative position of FIG. 4, it would interfere with attempts to initially feed the fabric from roll 34 around the positive feed roller 50. Consequently, it is mounted on arm 64 so as to be moved out of the way when the fabric retaining means is actuated to bring it to its retracted, inoperative position, as previously described. Thus, when the handle 96 is turned manually from its position of FIG. 4, the arm 64 is moved forwardly, carrying the scanning member 118 with it. The link 128 maintains the scanning member in upright position during this forward movement, and the roller 134 rides along the upper surface of extension 54 of side frame 14.

When the roller 134 reaches the forward end of extension 54, it rolls down the rounded front end 54*a* of said extension to the position shown in FIG. 3, the link 128 permitting the scanning member 118 to tilt forwardly, as shown, so that it is clear of positive drive roller 50. Fabric can now be fed freely between rollers 50 and 58 in the manner previously described. Handle 88 is now manually actuated to bring both idler roller 58 and scanning member 118 back to their operative positions of FIG. 4.

In electrically operated turntable machines of this type, it has hitherto been the practice to mount the reversible motor on the carriage frame where it is exposed to the outside of the machine and may cause injury to the operator. A feature of the present invention is the mounting of the motor 102 on the under side of the dolly 36 where it is remote from the outside of the machine. In addition this permits the use of a single length of chain 116 for connecting the motor to the carriage 12, to replace the circular endless chain normally employed in conventional machines.

While a preferred embodiment of the invention has been shown and described herein, it is obvious that numerous omissions, changes and additions may be made in such embodiment without departing from the spirit and scope of the invention.

What is claimed is:

1. In a fabric-spreading machine comprising a carriage movable back and forth over a table surface, a turntable section mounted on said carriage and including a dolly mounted on said carriage for lateral movement thereon, a platform rotatably mounted on said dolly and having means for supporting a roll of fabric thereon, and means for feeding fabric from said roll and guiding said fabric through said carriage to the table surface, the improvement comprising reversible drive means for moving said dolly laterally of said carriage whereby to shift the position of said roll of fabric relative to said carriage, and means for scanning one edge of said fabric fed from said roll, said drive means including a reversible motor mounted on said dolly, a drive sprocket operatively connected to said motor, and a single length of chain having an end of said chain secured to each side of said carriage and extending across the width thereof, said drive sprocket meshing with said chain to moving said dolly laterally of said carriage when said motor is energized, said scanning means being operatively connected to said motor for energizing the latter in response to lateral deviation of said one fabric edge as said fabric feeds from said roll, whereby to shift said fabric roll in a direction opposite to said lateral deviation.

2. A fabric-spreading machine according to claim 1 in which said motor is mounted on the under surface of said dolly and a pair of idler sprockets are mounted on said dolly on opposite sides of said drive sprocket, said chain extending beneath said idler sprockets and over said drive sprocket.

3. A fabric-spreading machine according to claim 1 in which said edge scanning means includes a scanning member having a pair of photoelectric cells, and a light source mounted on said carriage and facing said scanning member.

4. A fabric-spreading machine according to claim 3 in which said scanning member is movably mounted on said carriage for movement between an operative position in which it is closely spaced forwardly and faces said light source, and a retracted position in which it is spaced a substantial distance forwardly of said light source and is located below the level of said light source.

5. A fabric-spreading machine according to claim 4 which also includes a positive drive roller mounted on said carriage, an idler roller having an operative position located rearwardly of and closely spaced from said positive drive roller for guiding said fabric about said positive drive roller as the fabric is drawn from said roll, and a cam-guided linkage assembly mounting said idler roller in said operative position, said linkage assembly being selectively operable to move said idler roller to a retracted position spaced a substantial distance forwardly of said positive drive roller for feeding fabric between said rollers, said scanning member being mounted on said linkage assembly for movement thereby between its operative position and retracted position.

6. A fabric-spreading machine according to claim 5 in which said linkage assembly comprises a pair of spaced elongated arms carrying said idler roller therebetween at the front end thereof, a can slot on said carriage, cam followers on at least one of said arms in engagement with said cam slot, and manually operable drive means for moving said arms in a direction in which said cam followers move through said cam slot, said scanning member being mounted on the front end portion of one of said elongated arms proximate to said idler roller.

7. A fabric-spreading machine according to claim 6 in which said carriage includes a side frame having a flat upper surface and a rounded front extension thereon, said scanning member having a roller resting upon said flat upper surface in the operative position of said scanning member, said roller riding forwardly upon said upper surface and then downwardly around said rounded front extension when said scanning member is moved to its retracted position by said linkage assembly.

8. A fabric-spreading machine according to claim 7 in which said scanning member is mounted on said one elongated arm of said linkage assembly by a single link pivotally connected at one end to said scanning member adjacent said roller, and pivotally connected at said its other end to the forward end portion of said one arm.

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