June 18, 1957 E. PFARRWALLER 2,796,084

WEFT THREAD FEEDING MECHANISM FOR WEAVING MACHINES

Filed Jan. 31, 1955 3 Sheets-Sheet 1

Fig. 1

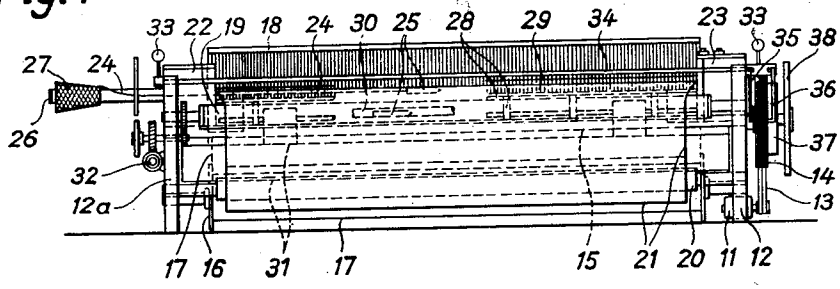


Fig. 7

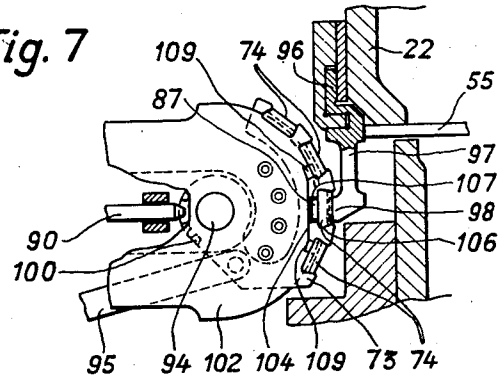


Fig. 8

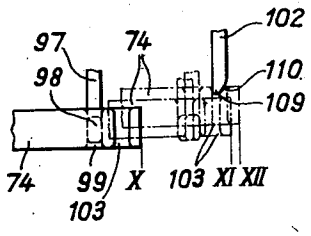
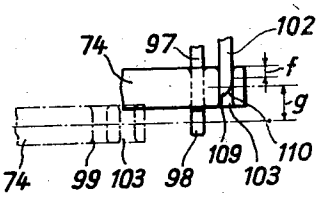


Fig. 9



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WEFT THREAD FEEDING MECHANISM FOR WEAVING MACHINES

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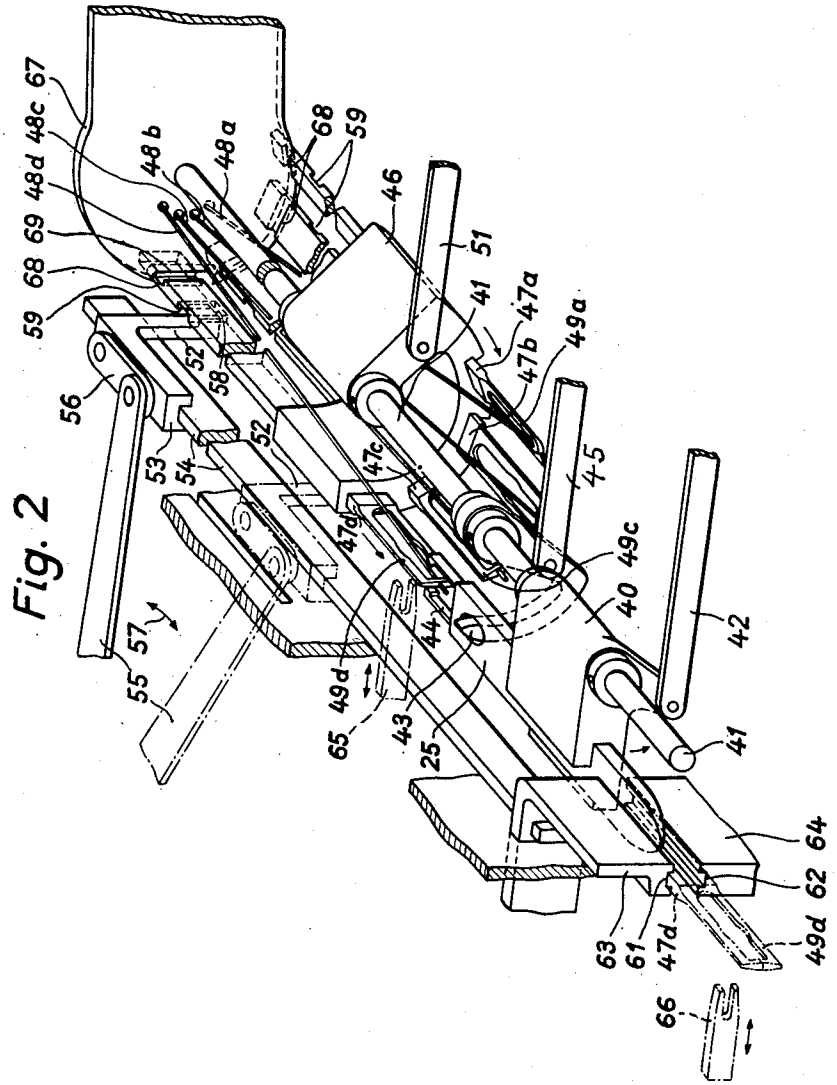


Fig. 2

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WEFT THREAD FEEDING MECHANISM FOR WEAVING MACHINES

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Fig. 3

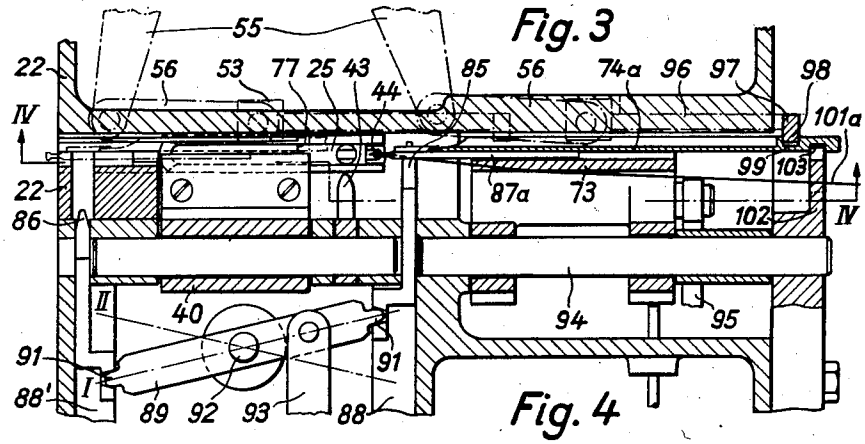


Fig. 4

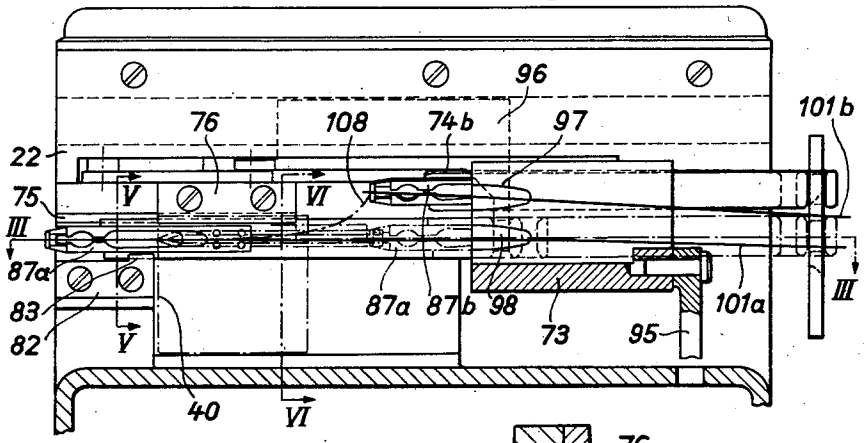


Fig. 5

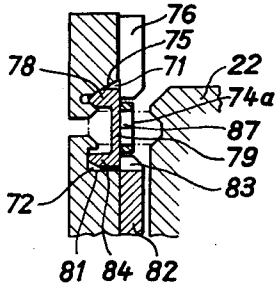
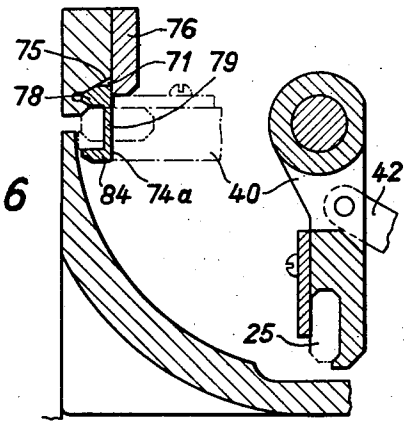


Fig. 6



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United States Patent Office 2,796,084 Patented June 18, 1957

2,796,084

WEFT THREAD FEEDING MECHANISM FOR WEAVING MACHINES

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Application January 31, 1955, Serial No. 485,063

Claims priority, application Switzerland February 6, 1954

9 Claims. (Cl. 139—126)

The present invention relates to a mechanism for selectively feeding two or more different weft threads from packages to elements for inserting the weft threads into a shed formed by warp threads in a loom for weaving.

The mechanism according to the invention comprises a weft thread changing element longitudinally movably supporting a plurality of weft thread feeding members for presenting individual weft threads to individual gripper shuttles, and means for longitudinally moving the feeding member which has presented a weft thread to a shuttle towards the shed after the shuttle has been picked into the shed for seizing the weft thread which has been inserted in the shed prior to cutting of the weft thread between the shed and the feeding member, and for returning the seized weft thread to the position where it is presented to a shuttle.

The apparatus according to the invention includes a stationary supplemental guide for longitudinally slidably supporting the feeding members during at least a portion of their longitudinal movement. This supplemental guide protects the feeding member against lateral movement and bending by openers for the thread clamp which is mounted on one end of the feeding member and which is opened by pushing a thorn between the jaws of the clamp in a direction transverse to the longitudinal movement of the feeding member. Because of the provision of the stationary guide the feeding members can be made shorter and lighter than thread feeders in mechanisms having no supplementary guide according to the invention.

The novel features which are considered characteristic of the invention are set forth with particularity in the appended claims. The invention itself however and additional objects and advantages thereof will best be understood from the following description of embodiments thereof when read in conjunction with the accompanying drawing, in which

Fig. 1 is a diagrammatic illustration of a weaving machine having gripper shuttles moving in a closed cycle, the weaving machine being viewed from the fabric beam side;

Fig. 2 is a perspective diagrammatic illustration of a mechanism according to the invention for selectively feeding weft threads to shuttles in a weaving machine of the type shown in Fig. 1;

Fig. 3 is a horizontal sectional view of a modified weft thread feeding mechanism according to the invention, the section being taken along line III—III in Fig. 4;

Fig. 4 is a part sectional side elevation of the mechanism shown in Fig. 3, the section being taken along line IV—IV in Fig. 3;

Fig. 5 is a cross sectional view of the mechanism according to Figs. 3 and 4, the section being taken along line V—V in Fig. 4;

Fig. 6 is a cross sectional view of the mechanism shown in Figs. 3 and 4, the section being taken along line VI—VI in Fig. 4;

Fig. 7 is a cross sectional view of a part of the mechanism according to Figs. 3 to 6;

Figs. 8 and 9 illustrate members of the mechanism shown in Fig. 7 in two different operating positions.

The same numerals designate the same parts in all figures.

Referring more particularly to Fig. 1 of the drawing, a motor **11** which is mounted to a frame shield **12** on the right side of the weaving machine drives a pulley **14** by means of a wedge belt **13**. The pulley **14** contains a clutch which is not visible in Fig. 1 and which drives a main shaft **15** of the weaving machine. The shaft **15** primarily operates the parts of the weaving machine which must be actuated continuously or intermittently during normal weaving operation. The shaft **15** operates a warp beam **16** unwinding a warp **17** whose threads are guided by heddles forming part of a plurality of heddle frames **18**, the latter being moved up and down by the main shaft **15** for opening, closing, and changing the shed. The main shaft **15** also drives a warp actuating beam **19** and a cloth beam **20** for winding the fabric **21**.

A shuttle picking mechanism housed in a casing **22** and a shuttle receiving mechanism **23** are driven through intermediate gears by means of the main shaft **15** in timed relation to the operation of a lay **28** provided with a reed **29**.

Weft threads **24** are pulled from weft thread packages **27** which are supported by a carrier **26** outside of the shuttles. The packages **27** are arranged in a row in a horizontal plane or are positioned on an arc in a horizontal plane, only one package being visible in Fig. 1. A selected weft thread **24** is presented to a gripper shuttle **25** in the housing **22**. After the weft thread has been gripped by a gripper on the shuttle **25**, the shuttle is picked through the shed to the shuttle receiving station **23**. Thereupon, the weft thread **24** is beaten up by the lay **28** and the weft thread is released from the shuttle **25**. The idle shuttles are returned from the receiving station **23** to the shuttle picking station in the housing **22** on a return conveyor **30** which is operated by the main shaft **15** and located below the shed.

The left frame shield **12***a* of the weaving machine is connected with the right frame shield **12** by means of a box girder **31** to form a rigid frame. A driving and timing mechanism **32** for the warp actuating beam **19** is mounted on the left frame shield **12***a*.

Control levers **33** and a control shaft **34** afford actuation of the clutch which is housed in the pulley **14** by means of a linkage **35** and actuation of a brake in a brake housing **37** by means of a linkage **36** for starting and stopping the weaving machine, whereby the operator may stand at various places around the loom. A brake in the housing **37** acts on the main shaft **15** and is applied at improper operating conditions for immediately stopping the main shaft **15** and all movable parts driven thereby, after the clutch in the pulley **14** has been released.

The brake in the housing **37** can be released in the conventional manner by manipulation of one of the levers **33** without engaging the clutch in the pulley **14**. Thereupon, the main shaft **15** is free to rotate and can be turned into desired positions by means of a hand wheel **38**, for example for adjusting the position of movable parts of the loom relatively to a zero position.

Fig. 2 illustrates parts of the shuttle picking mechanism in which the shuttles **25** are lifted by means of a shuttle lifter **40** from a shuttle return mechanism **30** (Fig. 1) and brought into a position from which the shuttles can be picked. The lifter **40** rotates on a shaft **41** and is actuated by a link **42** which is operatively connected with the main shaft **15** of the loom by conventional means, not shown. The shaft **41** freely rotatably supports an opener

43 for a clamp 44 which is mounted on the shuttle 25, the opener 43 being actuated by a link 45 operatively connected with the main shaft 15, whereby the movement of the opener is coordinated with that of the shuttle lifter 40.

A thread feeding member 47*d* which has been brought into the shuttle picking line is reciprocated by means of an actuator 52 having a slide portion 53 which slides on a rail 54, the actuator being connected by means of a link 56 with a lever 55 which is oscillated, as shown by the arrows 57, by the main shaft 15 of the loom. A suitable mechanism is described in my copending application Serial No. 376,780, filed August 27, 1953, of which the present application is a continuation-in-part. The actuator 52 has a nose portion 58 which is adapted to be inserted into a corresponding groove 59 of the thread feeding members 47*a*, 47*b*, 47*c*, and 47*d*, whenever a feeding member 47 has been moved by a thread changing element 46 into the picking line.

If the weft thread feeding member 47*d*, which is in the picking line, is moved towards the shed by means of the actuator 52, 53, the upper marginal portion adjacent to the clamp 49*d* of the feeding member 47*d* is longitudinally guided in a groove 61 of the upper part 63 of a stationary guide. The lower marginal portion of the feeding member 47*d* adjacent to its clamp 49*d* is guided in a groove 62 of the lower part 64 of a stationary guide. When the clamp 49*d* is in the position shown in dash-dot lines, which is adjacent to the shed, the clamp can be opened by means of an opener 66, the clamp closing automatically when the opener is withdrawn from the clamp. When the thread feeding member 47*d* is in its rearmost position, its clamp 49*d* can be opened by a clamp opener 65. The clamp closes automatically if the opener 65 is withdrawn from the clamp.

When the feeding members 47*a* to 47*d* are in their rearmost position, the marginal portion of a stationary locking member 67 extends into grooves 68 provided in the feeding members transversely to the direction of their longitudinal movement, so that any longitudinal movement of the feeding members is prevented while a selected feeding member is moved into the picking line by means of the thread changing element 46. The marginal portion of the locking member 67 has a recess 69 in the picking line, so that the rear end of the feeding member 47*d*, which is in the picking line, is free to move longitudinally and is not locked by the member 67. The stationary guides 63 and 64 and the locking member 67 are mounted on the loom frame. Fig. 2 is a view of the thread changing mechanism, as seen from the warp beam side of the loom.

The mechanism operates as follows:

After lifting of the shuttle 25 by means of the shuttle lifter 40 into the picking position, which is the position of the shuttle shown in Fig. 2, and after the opener 43 has opened the clamp 44 of the shuttle 25, which operation may be performed already during the lifting movement, the thread changing element 46 may be turned on the axis 41 for moving a thread feeding member 47 to which a weft thread 48 is clamped which is selected to be inserted into the shed by a shuttle 25, which is in the picking position. If the previously inserted weft thread was the thread 48*a*, the thread clamps 49*a* to 49*c* of the feeding members 47*a* to 47*c* are moved through the open shuttle clamp 44 upon turning of the thread changing element 46 until the feeding member 47*d* is in picking position.

When the feeding member 47*d* has arrived in the picking position, the shuttle clamp opener 43 is withdrawn from the clamp 44 and turned downward, so that the clamp 44 closes and seizes the end of the weft thread 48*d*. Thereupon, the clamp opener 65 is moved to the right in Fig. 2 for opening the clamp 49*d*, so that the thread 48*d* is now free to be pulled through the shed. The shuttle 25 is picked in a conventional manner.

While the shuttle 25 pulls the thread 48*d* through the shed, the shuttle lifter 40 is turned downward and the feeding member 47*d* is longitudinally moved in the picking line by means of the reciprocating mechanism 55, 56, 53, 52 through the guides 63 and 64, towards the shed into the position shown in dash-dot lines, in which the clamp 49*d* is opened by the opener 66. The weft thread 48*d*, which is on the same side of the clamp 49*d* as the shuttle lifter 40, can now move into the open clamp 49*d*. Since the forward end of the feeding member 47*d* is guided by the guides 61, 63 and 62, 64, the lateral pressure exerted by the opener 66 is absorbed by the guides 63 and 64, preventing bending of the feeding member 47*d*. Therefore, the feeding member can be made just so long that its rear end is still in the guide formed by the thread changing element 46. If there were no stationary guides 63, 64, the feeding member 47*d* would have to extend through the thread changing element 46 to be firmly held therein. Besides, the thread changing member would have to have a much greater cross section to prevent excessive bending of the feeding member and lateral movement of the clamp 49*d*. The mass of the feeding member would be much greater, and the thread changing element 46 would have to be much larger, because the guide grooves therein would have to be longer and of greater cross section.

After withdrawal of the clamp opener 66, the clamp 49*d* closes and grips the thread 48*d* which can now be cut between the shed and the clamp 49*d* by conventional means. The weft thread feeding member 47*d* may now be returned by means of the lever 55 to the position shown in solid lines, which is the rest position of the feeding member in the thread changing element 46. A weft thread tensioning apparatus, for example such as shown in my copending application Serial No. 461,624, filed October 11, 1954, will maintain a desired thread tension during the return movement of the feeding member.

The right end of the feeding member 47*d*, which is in the picking line, can freely move through the recess 69 of the transverse guide 67. After the feeding member has reached the rearmost or rest position, it is held in this position by the nose 58 of the actuator 52, 53, until the nose 58 leaves the transverse groove 59 in the feeding member because of rotation of the thread changing element 46. Before the nose 58 leaves the groove 59, the groove 68 of the thread feeding member is engaged by the marginal portion of the guide 67 at the upper or lower end of the recess 69, so that movement of the feeding member in the longitudinal direction is definitely prevented.

Figs. 3 to 5 illustrate stationary longitudinal guides 71, 72 for a thread feeding member 74*a*, which is in the picking line and which is longitudinally movably carried by a thread changing element 73. The longitudinal stationary guides 71 and 72 are placed on the outside of the casing 22 of the shuttle picking mechanism. The guide 71 is formed by a groove 75 having a substantially V-shaped cross section, the groove being partially covered by a cover plate 76. The groove 75 extends between the right edge 77 of the plate 76 and the end of the casing 22 which faces the shed. The guide 71 engages the upper flange 78 extending from a web portion 79 of the feeding member 74 whose cross section is substantially U-shaped.

The guide 72 extends between the shuttle lifter 40 and the end of the casing 22 of the shuttle picking mechanism which end faces the side of the shed. The guide 72 includes a groove 81 and a cover plate 82 having a nose portion 83. The groove 81, which receives the flange 84 extending laterally from the web portion 79 of the feeding member 74, has a rectangular cross section, as seen in Fig. 5. Numerals 85 and 86 designate openers for the thread clamps 87 of the feeding members 74. The openers 85 and 86 are longitudinally slidable in guides 88, 88', respectively. The openers 85 and 86 are actuated by a

two-arm lever 89 which swings on a pin 92. The ends of the lever 89 are provided with teeth 91 which engage corresponding gaps in the openers 85, 86. The lever 89 is moved between positions I and II by means of a link 93 which is connected to the loom shaft 15 by conventional means, not shown.

The operation of the device shown in Figs 3 to 6 is as follows:

The thread changing element 73 which revolves on the axis 94 has been moved by means of a link 95 into the position shown in Figs. 3 and 4 in which the weft thread feeding member 74*a*, to which a thread 101*a* is clamped, is in the picking line. The shuttle lifter 40 has brought a shuttle 25 into the picking position. The thread 101*a* can now be gripped by the shuttle gripper 44 which closes upon turning of the shuttle opener 43 in counterclockwise direction, as seen in Fig. 2. By moving the lever 89 into the position I, the opener 85 opens the clamp 87*a* of the weft thread feeding member 74*a*, so that the shuttle 25 can be picked in the conventional manner. Thereupon, the lever 55 moves the feeding member 74*a* to the left by means of the link 56 and an actuator 96, whose nose 98 at the end of an arm 97 engages a groove 99 in the feeding member 74*a*. The feeding member 74*a* is moved from the thread transfer position shown in solid lines in Fig. 3 towards the shed. When the feeding member reaches the right end 77 of the guide 71, the flange 78 is longitudinally guided in the groove 75. When the feeding member approaches its left end position, the flange 84 enters the groove 81. The shuttle lifter 40 leaves room only for a relatively long upper guide 71, and leaves little room for the lower guide 72, as seen in Fig. 6.

The V-shaped configuration of the flange 78 and of the corresponding groove 75 has the advantage that the feeding member 74 is not only firmly guided and held against up and down movements, but that any play or undesired clearance in the guide can be prevented in a simple manner. Therefore, the elevation of the clamp 87 is accurately maintained, so that a very slight opening of the clamp is sufficient to assure entry of the weft thread into the clamp.

Since the groove 75 for the flange 78 is not in the way of the shuttle 25 and of the shuttle lifter 40, the groove 75 can begin adjacent to the left side of the thread changing element 73. This has the advantage that the thread presenting members 74 can be guided along their entire length and can be small. There is no possibility for vibration of the thread presenting members and they smoothly enter the guide 75.

However, in the device illustrated in Figs. 3 and 4, a space between the rear edge 77 of the guide groove 75 and the thread changing element 73 is provided, for reasons discussed below.

So long as only the flange 78 is guided, the web portion 79 may be bent or twisted upon insertion of the clamp opener 86 into the clamp 87. Such bending or twisting is made impossible from the moment the lower flange of the weft thread feeding member enters the guide groove 72. The weft thread clamp 87 being riveted to the side of the web portion 79, the cover plate 82 can have only a short nose 83, because there must be a space over the forward portion of the plate 82 to permit opening of the clamp 87.

For seizing a thread 101, the opener 86 is inserted between the prongs of the clamp by turning the lever 89 into the position II. The opener 86 is subsequently withdrawn from the clamp by turning the lever 89 into the position I. The thread 101 may now be cut between the clamp 87 and the shed, whereupon the thread feeding member 74*a* is moved to the right by actuation of the lever 55, the weft thread 101 being simultaneously tensioned by means of a thread tensioner, such as shown in my copending application Serial No. 461,624, filed October 11, 1954, which tensioner is placed at the right side of the picking mechanism.

For presenting a different weft thread 101 to a shuttle, the thread changing element 73 is revolved until a selected thread feeding member is in thread transfer position. The members 74*a* to 74*d* are thereby guided and held against longitudinal movement by a stationary guide plate 102 whose marginal portion is received in transverse grooves 103 of the members 74.

Fig. 7 shows that only the thread feeding member which is in the picking path can be seized by the nose 98 on the arm 97, and that the marginal portion of the guide plate 102 is provided with a recess 104, so that the feeding member 74*a*, which is in the picking line, is not held against longitudinal movement by the transverse guide 102.

To afford shock-free passage of the thread feeding member 74 from the thread changing element 73 into the guide 71, the element 73 is arrested in the correct position by insertion of a pin 90 into one of four gaps 100 provided in the thread changing element 73.

The guide 102 holds the thread feeding members 74 in the longitudinal position corresponding to that in which a selected thread is presented to a shuttle, so that, if the thread changing element 73 is rotated, the clamp 87 of the selected thread presenting member is in correct position relatively to the clamp 44 of the shuttle which has been placed in the picking line by means of the lifter 40. In Fig. 7, a thread changing element 73 is illustrated which is provided with four grooves 106 of dovetail cross sectional configuration, in which four thread feeding members 74*a* to 74*d* are individually longitudinally guided. The bottom of the dovetail grooves 106 is provided with a recess 107 for accommodating the thread clamp 87 which is positioned on the side of the web portion 79 of the thread feeders. The inclination of the side walls of the grooves 106 corresponds to the inclination of the upper wall of the groove 75, the lower wall of the groove 75 declining, for convenience, at the same angle with respect to the horizontal. The angles of inclination are preferably 60°.

The arrangement of the right end 77 of the guide 71 at a certain distance from the thread changing element 73, as seen in Fig. 3, permits rotation of the thread changing element 73 as soon as the flange 78 of the feeding member, which is returned to the thread transfer or rest position, has left the guide 71 and permits continuance of the rotation during completion of the return movement of the thread feeding member 74. Since the shuttle 25 which is next to be picked is brought into the picking position by the lifter 40 at a later moment, the space between the guide end 77 and the thread changing element 73 (Fig. 3) is not only open above the picking line, but also below the picking line. The initial rotation of the thread changing element 73 is limited by the circumferential extent of the recess 104.

The dash-dot curve 108 in Fig. 4 illustrates the path of the clamping point of the clamp 87*b* of the thread feeding member 74*b* during a combined longitudinal return movement and a movement transverse thereto which is effected by the thread changing element 73. The member 74 moves thereby relatively to the arm 97 and its nose 98. In order to safely move the feeding member 74 into its rest position and to securely hold it therein, the feeding member 74 must be engaged by the nose 98, i. e. the nose 98 must be prevented from leaving the groove 99 until the marginal portion of the transverse guide plate 102 has entered the groove 103 of the feeding member. This situation is illustrated in Figs. 8 and 9.

The position X of the feeder 74 corresponds to the position in which the flange 78 of the feeder 74 has just left the guide 71. When the feeder 74 has reached the position XI, the thread changing element 73 has been so far revolved that the lower edge of the feeder 74 has

entered the recess **104** in the guide plate **102** (Fig. 7), and the groove **103** begins to receive the point **109** of the marginal portion of the plate **102** adjacent to the recess **104**. The plate **102** is slanted or rounded at this point, as indicated at **110** in Figs. 8 and 9, in order to assure a smooth entry of the guide **102** into the groove **103**. When the feeder **74** has reached the right end position XII, the left wall of the groove **103** abuts against the left or front side of the plate **102**. The feeder **74** is now in its exact rest position and cannot move in the direction of its longitudinal axis, if the nose **98** leaves the groove **99** (Fig. 9).

It is desirable that at the moment the feeder **74** has assumed its rest position, the plate **102** should have entered the groove **103** so far that there is already a surface portion *f* of the plate **102** above (or below, if the feeder **74** was moved downwards) the slanted or curved portion **110** engaged by the right side wall of the groove **103**. The feeder **74** is in this position when it has been laterally moved through the path *g* by the thread changing element.

The spacing of the thread feeders **74**, i. e. that of the grooves **106**, in the thread changing element **73** is greater than the length of the path *g*. To afford starting of the movement of a feeder **74** into the picking path, which is next to the feeder which has just been moved out of the picking path, the thread changing element must be rotated only through the difference between the aforesaid spacing and the length of the path *g*. This has the advantage that either the time needed for presenting a different thread, even if the thread feeder **74***a* must be replaced by the thread feeder **74***d*, is shortened, or that the acceleration and velocity of the movements of the thread changing element **73**, or of the feeder **74**, or of both, can be reduced, which is of importance, if the loom operates at a great number of picks per time unit.

While specific embodiments of the invention have been shown and described, it will be apparent to those skilled in the art that various changes, modifications, substitutions, additions and omissions may be made therein without departing from the spirit and scope of the invention as set forth in the appended claims.

What is claimed is:

1. A mechanism for individually selectively feeding weft threads to inserting elements for inserting the weft threads into a shed formed by warp threads in a loom for weaving, said mechanism comprising a thread changing element, a plurality of weft thread feeding members carried by and longitudinally slidably guided in said thread changing element, means for individually longitudinally moving said thread feeding members between a thread transfer position in which a weft thread is transferred from a thread feeding member to a weft inserting element and a thread seizing position in which a weft thread which has been inserted in the shed is seized by a thread feeding member adjacent to the shed, and at least one stationary guide element for supplementally carrying and longitudinally guiding said weft thread feeding members during at least a part of their longitudinal movement.

2. A mechanism as defined in claim 1, in which said weft thread feeding members are guided to move substantially horizontally and individually have a linear longitudinal upper marginal portion and in which said stationary guide element has a guide means adapted to individually longitudinally slidably engage and guide said upper marginal portions.

3. A mechanism as defined in claim 1, in which said weft thread feeding members individually have a linear guide portion of substantially V-shaped cross sectional configuration and in which said stationary guide element has a longitudinal guide groove of substantially V-shaped cross sectional configuration corresponding to the cross sectional configuration of said guide portions for longitudinally slidably guiding said guide portions.

4. A mechanism as defined in claim 1, in which said thread changing element is adapted to move said feeding members in a direction transversely to their longitudinal movement for moving a selected feeding member into and out of the picking line, in which each of said weft thread feeding members is provided with a groove extending transversely to the direction of the longitudinal movement of said feeding members, and in which a stationary locking member is provided having a convex marginal portion extending into said grooves for locking said feeding members against longitudinal movement during a transverse movement of said feeding members, the marginal portion of said stationary locking member having a recess affording longitudinal movement of the feeding member which is in the picking line.

5. A mechanism according to claim 4, in which said marginal portion of said stationary locking member is slanted adjacent to said recess in said marginal portion for affording movement of said thread changing element for transversely moving said feeding members while the feeding member which is in the picking line is still longitudinally moving toward the position in which the groove of the feeding member will be engaged by said locking member.

6. A mechanism as defined in claim 1, in which said weft thread feeding members individually have a web portion and two flanges extending therefrom to form a substantially U-shaped cross sectional configuration, and in which said stationary guide element has longitudinal guide portions adapted to individually receive said flanges, a weft thread gripper being mounted on the side of said web portion which is opposite said flanges.

7. A mechanism according to claim 6, in which said thread gripper has two jaws and in which one of said longitudinal guide portions has a recess accommodating one of said jaws when said gripper is opened.

8. A mechanism for selectively feeding weft threads to the shuttles in a loom for weaving, in which the shuttles are of the gripper type for pulling weft threads through the shed from weft thread packages located outside of the shuttles and in which the idle shuttles after having pulled a weft thread through a shed formed by warp threads are returned to a weft thread receiving and shuttle picking station, said mechanism comprising a shuttle lifter disposed at the weft thread receiving and shuttle picking station for moving individual shuttles into a weft thread transfer position, a thread changing element interposed between the weft thread packages and said shuttle lifter, a plurality of weft thread feeding members carried by and substantially horizontally longitudinally slidably guided in said thread changing element, means for individually longitudinally reciprocatingly moving said thread feeding members between the thread transfer position in which a weft thread is transferred from a weft thread feeding member to a shuttle and a thread seizing position in which a weft thread which has been inserted in the shed is seized by a thread feeding member, said weft thread feeding members individually having a linear longitudinal upper marginal portion and a linear longitudinal lower marginal portion, and stationary guide means for supplementally longitudinally guiding said weft thread feeding members, said stationary guide means having an upper part adapted to individually longitudinally slidable engage and guide said upper marginal portions, said stationary guide means having a lower part interposed between the shed and said shuttle lifter and adapted to individually longitudinally slidably engage and guide said lower marginal portions.

9. A mechanism for individually selectively feeding two or more weft threads to inserting elements for inserting the weft threads into a shed formed by warp threads in a loom for weaving, said mechanism comprising a thread changing element, a plurality of weft thread feeding members, means for individually moving said feeding members in the direction of the weft thread inserting line in the shed between a thread transfer position in

which a weft thread is transferred from a thread feeding member to a weft inserting element and a thread seizing position in which a weft thread, which has been inserted in the shed is seized by a thread feeding member adjacent to the shed, means for moving said feeding members transversely to said direction, said thread changing element containing means for longitudinally slidably guiding said feeding members, and at least one stationary guide means for individually guiding said feeding members.

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