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Titov et al.

[11] **3,851,679**

[45] **Dec. 3, 1974**

[54] **DEVICE FOR RETAINING THE END OF A WEFT THREAD IN LOOMS**

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[52] **U.S. Cl.** **139/194**

[51] **Int. Cl.** **D03d 45/50,** D03d 47/00

[58] **Field of Search** ..... 139/11, 12, 13, 122 R, 139/122 S, 122 W, 123, 125, 194, 302, 303

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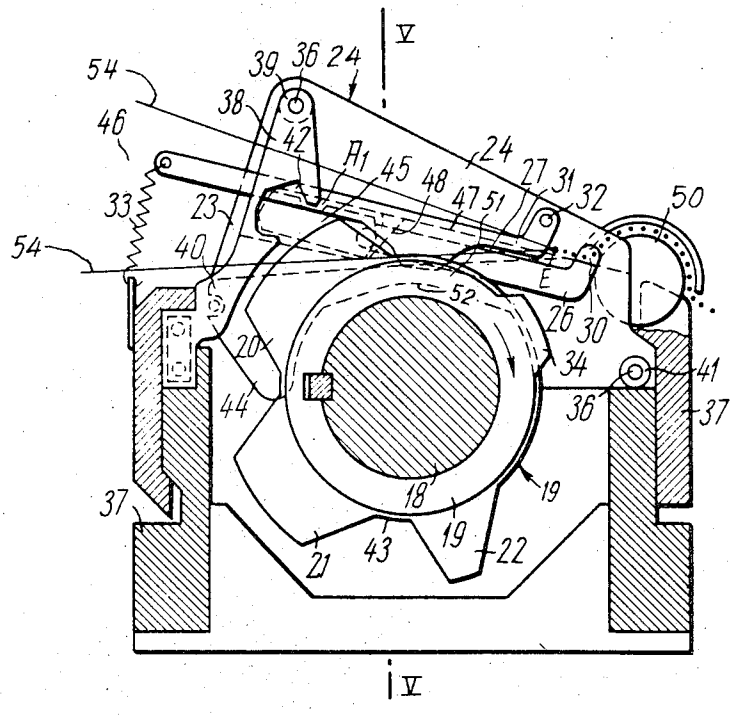
Primary Examiner—Henry S. Jaudon

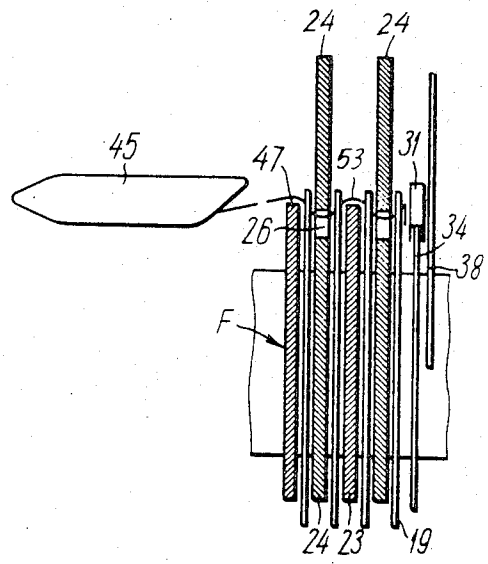
Attorney, Agent, or Firm—Holman & Stern

[57] **ABSTRACT**

A device for gripping and retaining the end of a weft thread in shuttleless looms in which the weft thread is inlaid from fixed spools (looms with flexible needles and gripper or micro-shuttles) and multiple shed or wave weaving looms in which the weft thread is inlaid by several shuttles at a time in a selvage forming operation provided with contoured plates having elongated portions, cutouts and lugs, the plates being pivotally mounted and spaced apart with their recesses defining a channel for the passage of the weft thread carrier while the lugs overlap whereby the thread is bent therebetween in the fashion it is bent between the warp threads and is retained in this position by friction.

8 Claims, 7 Drawing Figures





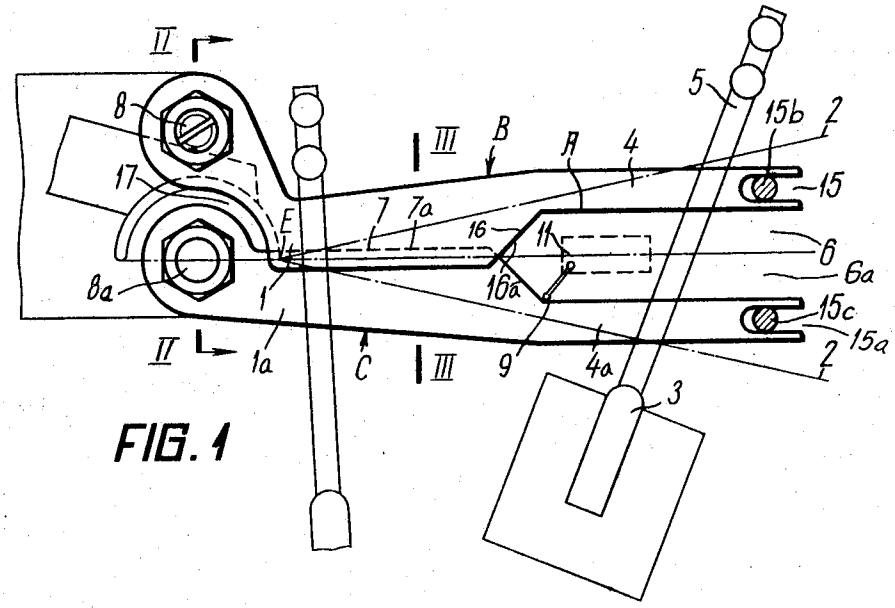


FIG. 1

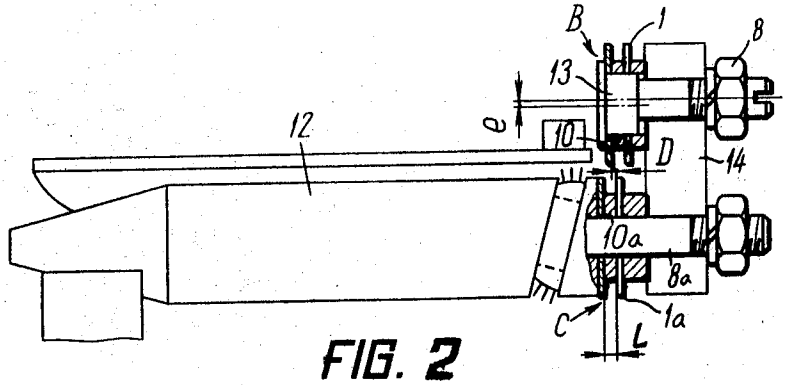


FIG. 2

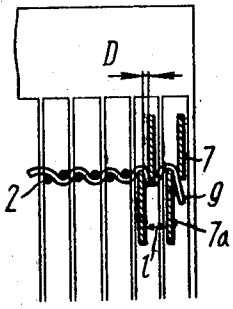


FIG. 3

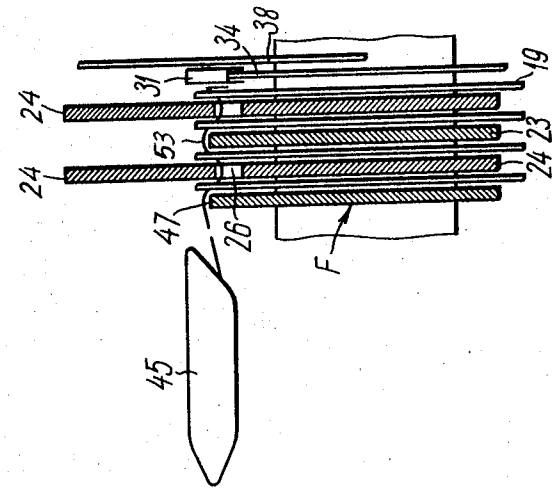

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FIG. 5

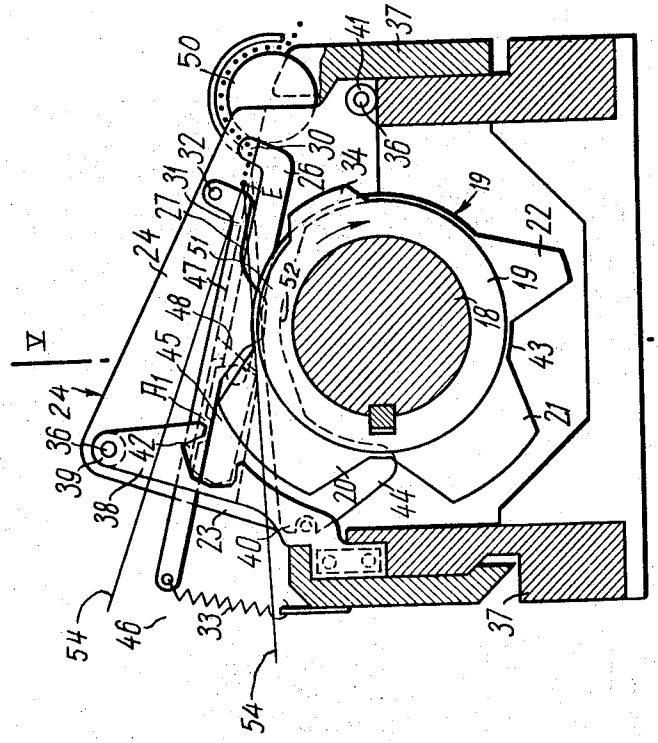

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FIG. 4

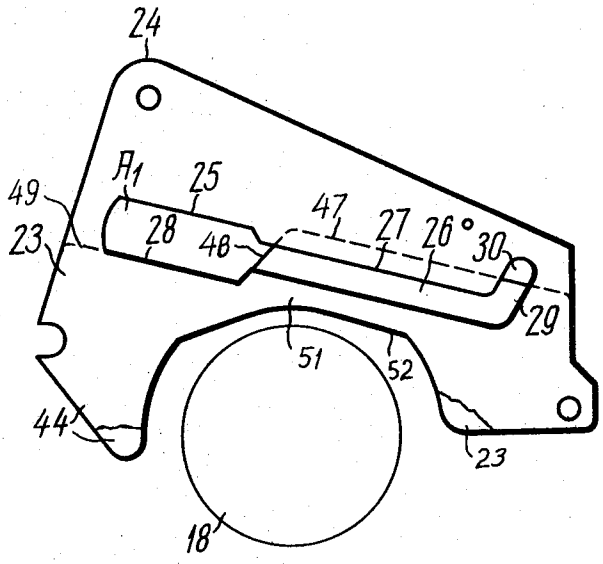


FIG. 6

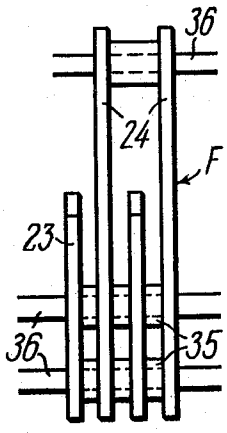


FIG. 7

DEVICE FOR RETAINING THE END OF A WEFT THREAD IN LOOMS

BACKGROUND OF THE INVENTION

The present invention relates generally to shuttleless looms in which the weft thread is inlaid from fixed spools (looms with flexible needles and gripper or micro-shuttles) and wave weaving or multiple-shed looms in which the weft thread is inlaid by several shuttles at a time, and more particularly it relates to devices for retaining the end of a weft thread in such looms.

The present invention can be employed to utmost advantage for retaining the end of a weft thread during a selvage forming operation performed in such looms.

PRIOR ART

At present, in shuttleless looms wherein weft threads are inlaid as individual lengths, there are often employed mechanisms forming various kinds of intertwined selvages. These mechanisms are capable of forming a strong selvage only when the end of the thread is retained by some device in a tensioned state. In most cases, to achieve this aim, the length of the weft thread that is being inlaid is somewhat greater than it is needed to weave a cloth of the specified width, and the end of the weft thread is intertwined with a certain amount of additional warp threads. Once retained, the end of the weft thread is intertwined by the intertwining mechanism and then, after the reed has beaten up the weft thread to the fell of the cloth and the intertwining mechanism has formed a strong selvage, this end of the weft thread is cut away together with the additional warp threads, which increases the wastage of weft and warp threads. Besides, with this method of selvage forming, it is necessary to mount on the loom additional small warp beams especially for the purpose, since the consumption of the warp threads for the additional weaving (i.e., for selvage forming) is less than that for weaving the cloth proper, whereby it is practically impossible to employ the threads of the main warp beam for this additional intertwining of the end of the weft thread.

The devices retaining the end of the weft thread in a tensioned state in the known looms include stationary plates with a groove for the passage of the weft thread carrier or shuttle and rotary plates in the form of a ring with a single tooth adapted to engage the stationary plate to catch the end of the weft thread and to move it toward the fell of the cloth, as the ring is rotated.

This device effects a reliable retaining of the end of the weft thread; however, this caught end of the thread means that a greater length of the weft thread is unwound from the weft thread carrier than is necessary, and this excessive length is consequently cut away. This is due to the fact that the tooth of the rotary plate retains the end of the weft thread over a considerable distance and, as the tooth is sliding along the stationary plate, it unwinds this excessive length of the weft thread.

There are also other known devices for retaining the end of the weft thread, including members retaining the end of the weft thread inlaid by the carrier, until the thread is beaten up to the fell of the cloth by the teeth of the reed, with the members being mounted at the opposite sides of the reed.

These members retaining the end of the weft thread include two pawls which approach the end of the weft thread and retain it. However, in order to catch the end of the thread, the pawls are actuated through a complex motion that is effected by a complicated and bulky drive mechanism occupying relatively great space.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a device for retaining the end of the weft thread in looms of the type described which should not include movable members for retaining the end of the weft thread and which should simply and reliably retain this end without any unnecessary wastage of the weft thread.

This object is attained in a device for retaining the end of the weft thread in such looms, comprising members retaining the end of the weft thread inlaid by the weft thread carrier or shuttle, until this thread is beaten up to the fell of the cloth by the teeth of the reed, with the members being mounted at the opposite sides of the reed, in which device, in accordance with the present invention, each of the members includes two groups of contoured plates, each plate having an elongated portion extending intermediate of the teeth of the reed, a cutout and a lug, the plates being pivotally mounted and spaced from one another, the two groups of plates being arranged so that the cutouts of the plates define a channel for the passage of the weft thread carrier and the lugs of the plates of one group are received intermediate of the lugs of the plates of the other group, partly overlapping one another, so that the respective ends of the weft thread are successively bent about said lugs of the plates.

With the plates having the above-specified structure, the teeth of the reed, due to their interaction with the elongated portions of these plates, alway extend intermediate of these portions and advance the end of the weft thread toward the fell of the cloth. Furthermore, with the plates being arranged in groups so that the lugs of the plates of one group partly overlap the lugs of the plates of the other group, the end of the weft thread is bent therebetween in the manner it could have been bent about the warp thread and is retained in this position by friction.

The invention is further characterized in that there are washers or spacers interposed between the plates, so as to provide for setting a desired spacing of the plates. By replacing the washers with those of a different size, it is possible to vary the spacing of the plates and thus to adjust the friction between the thread and the lugs of the plates, which renders the present device an all-purpose one, since it can be used for weaving of threads composed of fibers of various kinds and of threads of various yarn counts.

In accordance with one of the embodiments of the present invention, each group of the plates is a series of these plates, with the two series being mounted one above the other and relatively displaced so that the lugs of the plates of one of the series are received intermediate of the lugs of the plates of the other series, with a gap left therebetween, and the lugs of these plates having a length equal to the spacing between the channel for the passage of the weft thread carrier and the area where the temples are mounted in the loom.

The plates being thus arranged, the device can be employed in looms in which the weft thread is beaten

up to the fell of the cloth by a common-type reed with a slay.

The invention is further characterized in that, in order to adjust the degree of the overlapping of the lugs, one of the pivot axes on which the series of the plates are mounted is an eccentric one. In this way, it becomes possible to adjust the degree of the bending of the weft thread and, consequently, to adjust the friction between the thread and the lugs of the plates.

According to another embodiment of the present invention, the plates of one of the two groups have a size geater than that of the plates of the other group and alternate with these plates of the other group, with the plates of the two groups forming a single series, each of the plates of this greater size having a slit cut therein, overlapped by the lugs of the smaller plates, this slit communicating at one end thereof with the above-said cutout and having the other end thereof disposed above the lugs of the smaller plates, the slits of the greater plates defining a through passage extending throughout the entire series, and through which the end of the weft thread exits, after the thread has been beaten up to the fell of the cloth.

The plates being arranged in the last-described manner, the device can be incorporated in multi-shed looms, wherein the reed is in the form of a rotary shaft carrying a pluraliy of discs provided with beat-up teeth.

The invention is also characterized in that this through passage for the exit of the end of the weft thread is disposed in the area of the mounting of the temples of the loom, because the longer the zone over which the end of the weft thread is retained after the thread has been beaten up to the fell of the cloth, the more reliably the selvage of the cloth is retained against narrowing on account of the bending of the weft thread between the warp threads. By adjusting the degree of the overlapping of the lugs of the plates and the spacing of the plates, it becomes possible to attain such a value of the friction between the thread and the lugs of the plates, (i.e., to retain the ends of the weft thread at both sides of the cloth with such an effort) that any narrowing of the cloth would be positively prevented and the use of the temples in the loom would be unnecessary.

The invention is also characterized in that, in case the reed is made in the form of a rotary shaft carrying discs with beat-up teeth, there is mounted in front of the plates, in the direction of the motion of the weft thread carrier, an arm resiliently biased toward the beat-up tooth of the disc on this shaft, the arm biasing the end of the weft thread against this tooth, with the arm being lifted to let the weft thread carrier pass thereby with the help of a cam mounted on the shaft and the weft thread carrier itself.

The invention is still further characterized in that the device is mounted in a loom so that its position can be adjusted longitudinally of the reed. In this way, the device is adjustably positionable to correspond to the width of the cloth woven by the loom.

To conclude, in the present device, the end of the weft thread is retained by friction developed as the weft thread is bent about the lugs of the plates, which permits the elimination of movable parts and thus reduces the size of the device. Furthermore, the provisions for varying the number of the plates and the positioning thereof enable the adjustment of the value of the friction thus developed and in this way ensures dependable retaining of the end of the thread, there being no necessity to increase the length of this end.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will be described hereinbelow in connection with two alternative embodiments of a device for retaining the end of a weft thread, with reference being had to the accompanying drawings, wherein:

FIG. 1 is a side elevation view of a device in accordance with the present invention;

FIG. 2 is a view taken along line II—II of FIG. 1, the view looking in the direction of the arrows;

FIG. 3 is a sectional view taken along line III—III of FIG. 1;

FIG. 4 is a partly sectional side elevational view of an alternative embodiment adapted for incorporation in a loom wherein the reed is in the form of a rotary shaft carrying discs with beat-up teeth;

FIG. 5 is a sectional view taken along line V—V of FIG. 4;

FIG. 6 is a view illustrating the shape of the plates, according to the second embodiment of the invention; and

FIG. 7 is a view illustrating the arrangement of the plates according to the second embodiment, the view being a rear elevation, with the discs of the reed removed.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now in particular to the appended drawings, the device for retaining the end of the weft thread in a selvage forming operation in a shuttleless loom comprises two groups of contoured plates **1** and **1***a* (FIG. 1) arranged parallel to warp threads **2**, at both sides of a reed **3**.

Each contoured plate **1** and **1***a* has an elongated portion **4** and **4***a* received intermediate of adjacent teeth **5** of the reed **3**, a cutout **6** and **6***a* and a lug **7** and **7***a*. The plates are pivotally mounted on axes **8** and **8***a*, with the spacing therebetween equalling L (FIG. 3).

The groups of the plates **1** and **1***a* are arranged so that the cutouts **6** thereof define a channel A (FIG. 1) for the passage of a weft thread carrier, while the lugs **7** of the plates of one group extend intermediate of the lugs **7***a* of the plates of the other group, partly overlapping one another, so that the respective ends of a weft thread **9** become successively bent about these lugs **7**, as is shown in FIG. **3**, in a manner that the weft thread is bent between the warp threads **2**. The lugs **7** and **7***a* overlap each other 1 to 2mm, and the range of the spacing is from 0.2 to 1mm.

Washers or spacers **10** and **10***a* (FIG. 2) are interposed between the adjacent plates **1** and **1***a*, with these washers determining the permanent spacing between the plates **1** and **1***a*. By replacing the washers **10** and **10***a* with those of a different thickness, it is possible to adjust the spacing L of the plates, to correspond to the yarn count of the weft thread, to the gauge of the reed and to the kind of fiber.

The actual shape of the plates **1** and **1***a* and their specific arrangement depend on the structure of the reed **3**. There will be described hereinbelow two alternative embodiments of the plates **1** and **1***a*, for association with the reed of two different structures.

For the present device to be incorporated in a non-multished loom with a weft thread carrier **11** (FIG. 1) in the form of flexible needles, the loom employing a common-type reed **3** with a slay, each one of the two groups of the plates **1** and **1***a* is arranged in a series B or C, respectively. The two series B and C are mounted one above the other and are relatively displaced so that the plates **1** of the series B have their lugs **7** partly projecting into the respective spaces intermediate of the lugs **7** and **7***a* (FIG. 3) of the plates of the series C, defining therebetween a gap D accommodating the weft thread **9** which is successively bent about the lugs **7** and **7***a*.

The series C of the plates **1***a* is pivotally mounted on the axis **8***a* (FIG. 2) which is the axis of a respective temple **12,** while the series B of the plates **1** is mounted pivotally on an axis **8** supported by a bracket **14** of the temple **12.** In order to provide for varying the degree of the overlapping of the lugs **7,** the axis **8** pivotally supporting the series *B* of the plates **1** is an eccentric axis **13,** with its eccentricity *e* determining the range of the adjustment of one of the series relative to the other one. The axes **8** and **8***a* extend through corresponding openings (not shown) provided in the plates **1** and **1***a* of the respective series B and C. For retaining the plates **1** in parallelism to the warp threads **2,** the elongated portions **4** and **4***a* (FIG. 1) of the plates **1** and **1***a* have grooves **15** and **15***a* therein to accomodate stationary support rods **15** which retain the plates in respect of stationary supports **15***b* and **15***c*. The plates **1** and **1***a* of the herein described embodiment being arranged in two series B and C, the cutouts **6** and **6***a* thereof define the channel A for the passage of the weft thread carrier **11,** with the cutouts **6** and **6***a* of the plates **1** merging with the lugs **7** and **7***a* through inclined portions **16** and **16***a*. The lugs **7** and **7***a* of the plates **1** and **1***a* are of a length equal to the distance from the channel A for the passage of the weft thread carrier **11** to the temples **12** of the loom.

In the presently described embodiment, the end of a weft thread is retained in the following manner.

The weft thread carrier **11** enters the passage A of the device and inlays the weft thread **9** of which the end is placed in the zone of the arrangement of the plates **1***a*.

Then a beat-up operation is commenced, with the teeth **5** of the reed **3** advancing the weft thread toward the fell of the cloth, indicated in FIG. **1** as a point E. During this advance of the weft thread, its end **9** is moved by the teeth **5** of the reed **3** along the inclined portions **16** and **16***a* into the gap intermediate of the lugs **7** and **7***a* of the plates **1** and **1***a* of the two series B and C, with the end of the weft thread thus assuming a zig-zag configuration, i.e., it is bent in succession about the lugs **7** and **7***a* (FIG. **3**). In other words, the end of the weft thread **9** is bent between the plates in the manner it could have been bent between the warp threads **2.** The friction developed between the thread and the lugs **7** and **7***a* of the plates retains the thread against axial displacement, whereby the weft thread is sufficiently tensioned for selvage forming. After the corresponding course of the cloth and of the selvage thereof have been formed, the cloth is forwarded toward the temples **12,** and the ends of the weft thread are released, leaving through a gap **17** (FIG. **1**) defined between the two series B and C of the plates **1** in the zone of the arrangement of the temples **12.** The gap **17** is the zone which is not covered by the plates **1** and **1***a*. In addition, another spacing of 2–3mm is provided between the edges of the plates of one series "**13**" and another series C to allow the free exit of the ends of the weft thread from the plates. The ends can then be cut off and removed in a common way, with the cutting and removing being outside the scope of the present invention.

By varying the number of the plates **1** and **1***a* and by replacing the washers **10** and **10***a* (FIG. **2**) interposed therebetween with washers of a different size, the spacing L between the plates **1** can be adjusted, and the value of the gap D between the lugs **7** and **7***a* of the respective plates of the series B and C is also adjusted by rotating the axis **13,** the degree of the overlapping of the lugs **7** can be adjusted. In this way it is possible to set that minimal tension of the weft thread, which is sufficient for selvage forming of the particular cloth being woven.

In cases in which the present device is to be incorporated in multi-shed or wave weaving looms, the reed is in the form of a rotary shaft **18** (FIG. **4**) with discs **19** mounted thereon in an axially spaced relationship, the discs having beat-up teeth **20, 21** and **22,** with two groups of contoured plates **23** and **24** being arranged as a single series F (FIGS. **5** and **7**). In this embodiment, the plates of one group are of a size greater than that of the plates of the other group, with the plates of the two groups alternating in this series F. The plates of the smaller size are indicated with the numeral **23,** their shape being illustrated with a dash line in FIG. **6.** The lower portions of these smaller plates **23** have the same configuration, as the adjacent portions of the greater plates and are mounted flush therewith.

Each of the plates **23,** like the plates **1** described hereinabove, has a lug **47** merging through an inclined portion **48** with a cutout **49.**

The greater plates are indicated **24,** with their contour being shown in FIG. **6** with a solid line.

The plate **24** has a cutout **25** and a slit **26.** The plates **23** and **24** alternate in the series F so that the lugs **47** of the plates **23** partly overlap the slits **26** of the plates **24,** i.e., the edge of the lug **47** of each plate **23** is above an upper edge **27** of the slit **26,** while a lower edge **28** of the cutout **25** of each plate **24** coincides with the adjacent edge of the cutout of the plate **23,** defining a channel A_1 similar to the channel A for the passage of the weft thread carrier.

The slit **26** of each plate **24** communicates with the cutout **25,** with end **29** of the slit, opposite to the cutout, being raised above the lugs **7** of the adjacent plates **23,** thus defining a through passage **30** through which the end of the weft thread can exit after the thread has been beaten up to the fell of the cloth.

In order to provide for a dependable retaining of the end of the weft thread which in this type of loom is inserted as a cut length and to prevent contraction of the fell of the cloth, the plates **23** and **24** are of such a length that the through passage **30** is located in the zone of the arrangement of temples **50** (FIG. **4**) of the loom.

Positioned adjacent to the plates **23** and **24** in the direction of the motion of the weft thread carrier is an arm **31** pivotally mounted on the plate **24** via a pivot pin **32,** with the arm being resiliently biased by a spring **33** to the leading or driving tooth **20** of the discs **19** on the shaft **18.**

The arm is intended to bias the end of the weft thread issuing from the weft thread carrier to the tooth **20**.

To allow the weft thread carrier to enter the channel A_1, there is mounted on the shaft **18** a cam **34** engaging the arm **31** and adapted to raise the latter for specified periods. The cam **34** may be of a shape ensuring retaining of the arm in a raised position over the entire period of the passage of the weft thread carrier therebelow. However, the contour of the cam may be such that the arm will be lifted only in the initial period, to permit the leading end or nose of the carrier to pass therebelow, after which the carrier itself supports the arm in the lifted state, with the arm lowering toward the leading tooth **20** of the disc after the carrier has passed by.

Interposed between the plates **23** and **24** (FIG. 7) are washers or spacers **35** similar to the previously described washers or spacers **10**. The plates **23** and **24** are mounted on bars **36** and are supported by a stationary base **37** (FIG. 4) of the weaving mechanism, the plates being adjustable longitudinally of the bars **36** to correspond to the width of the cloth being woven by the loom.

The weaving mechanism includes, in addition to the above-specified rotary shaft **18** with the discs **20**, performing the function of the reed, and the means for forwarding the weft thread carrier, in the form of the beat up tooth **20**, also spacer plates **38** interconnected by the bars **36** with interposed gaskets **39**, the spacer plates being stationary in respect of the base **37**.

The spacer plates **38** and the discs **19** of the shaft **18** are received intermediate of guide plates **40**, with each guide plate having one end thereof received intermediate of the adjacent spacer plates **38**, with the opposite ends of the guide plates **40** being separated by gaskets **41** and secured to the base **37**.

The contour of the lower portions of the guide plates **40** corresponds to that of the lower portions of the plates **23** and **24** and is flush therewith.

The spacer plates **38** have cutouts defining jointly a channel **42** for a guided motion of the weft thread carrier in the shed formed by the warp threads, with this channel **42** being a continuation of the channel A_1 defined by the device for retaining the end of the weft thread.

The plates **23** and **24**, the same as the plates **1** of the previously described embodiment, have elongated portions **51** extending along the discs, with the teeth **20, 21** and **22** of the discs being received intermediate of these elongated portions **51**.

The lower edge of these elongated portions **51** has a contour coinciding with that of the lower portions of the guide plates **40**, the elongated portions **4** being arranged intermediate of the discs **19** and having their lower portions **52** projecting below the dedendum circle of disc **19** between the teeth **20, 21, 22**. Each elongated portion **51** has a slope **44** preventing an impact of the leading edges of the teeth against the elongated portions **51**. If the edge of either of the teeth **20, 21, 22** is slightly bent, the edge will slide along this slope **44** and will be guided thereby into the space intermediate of the plates **23** and **24**.

In this embodiment of the device, the end of the weft thread is retained in the following manner.

A weft thread carrier or shuttle **45** shown with a dash line in FIG. **4** is directed into the channel **42** of the weaving mechanism, wherein it is driven by the leading or driving teeth **20** of the discs **19** on the rotary shaft **18**. As the carrier **45** approaches the arm **31**, the latter is raised by the cam **34** to allow the carrier **45** pass into the channel A_1 of the device. The profile of the cam **34** is such that the arm **31** is raised before the approaching carrier **45** of a weft thread **53** and then is lowered onto the carrier. After the carrier **45** has passed by the arm **31**, the latter slides off the rear end of the carrier and presses the end of the weft thread **53** against the tooth **20** of the disc **19** and retains the end in this position, while the carrier moves through a shed **46** formed by warp threads **54** and then while the end of the weft thread **53** is moving toward the fell E of the cloth together with the tooth **20**, as the thread is beaten up.

As the shaft **18** is rotated, the tooth **20** of the disc **19** drives the weft thread **53** and introduces it along the inclined portion **48** (FIG. 7) into the gap between the edges of the lugs **47** of the plates **23** and the upper edges **27** of the slits **26** of the plates **24**, wherein the weft thread is bent in so far as it could have been bent between the warp threads (FIG. **5**).

While the carrier **45** is driven through the shed **46**, the weft thread **53** is unwound from the bobbins of the carrier by an extent equal to the length of the path of the carrier plus the curved path of the thread between the plates **23** and **24**.

As the leading or driving tooth **20** (FIG. 4) forwards the end of the weft thread to the fell E of the cloth, the thread slides along the edges of the lugs **7** of the plates under the action of this tooth and, after the teeth **21** and **22** have beaten up the thread **53** to the fell E of the cloth, the end of the thread enters the slits **26** along which it is driven by the moving cloth into the through passage **30**, after which the thread freely leaves the device. The passage **30** being located in the area of the arrangement of the temples **50**, the cloth, as it is moved from the fell E to the temples **50**, is retained in a transversely tensioned (spread) state by the retained ends of the weft thread, in which way narrowing of the cloth is prevented, after which the cloth is engaged by the temples **50** retaining it in this spread state.

What is claimed is:

1. A device for retaining the end of a weft thread in shuttleless looms including a reed with teeth for beating up the weft thread to the fell of the cloth being woven and a weft thread carrier, said device comprising: means for retaining the ends of the weft thread, said retaining means including two groups of contoured plates arranged at both sides of said reed; said plates having elongated portions received intermediate of said teeth of said reed, said plates further having cutouts and lugs; axes supporting said contoured plates in a spaced relationship; said two groups of said contoured plates being arranged so that said cutouts thereof define a channel for the passage of said weft thread carrier and said lugs of said said plates of one of said two groups being received intermediate of said lugs of said plates of the other of said two groups to partly overlap one another so that the respective ends of said weft thread will be bent in succession about said lugs.

2. A device as claimed in claim **1**, wherein washer means are interposed between said plates so as to provide for adjustable spacing of said plates.

3. A device as claimed in claim **1**, wherein each of said two groups of said plates is a series of said plates, said two series being mounted one above the other and relatively displaced, whereby said lugs of said plates of one of said series are received intermediate of said lugs

of said plates the other of said series, defining therebetween a gap adapted to accomodate the end of said weft thread, said lugs of said plates having a length equal to the distance from said channel for the passage of said weft thread carrier to the area where temples are mounted in said loom.

4. A device as claimed in claim **3,** wherein one of said axes supporting said plates is an eccentric one so as to provide for adjustment of the degree of the overlapping of said lugs.

5. A device for retaining the end of a weft thread in looms in which the weft thread is inserted as a cut length and including a weft thread carrier and a reed in the form of a rotary shaft with discs having beat-up teeth for beating up the weft thread to the fell of the cloth, comprising means for retaining the end of the weft thread, each of said means including two groups of contoured plates arranged at both sides of the reed, said plates having elongated portions located between the teeth of the reed, the plates further having cutouts and lugs, axes supporting the contoured plates in spaced relationship, the groups of contoured plates being arranged so that the cutouts thereof define a channel for the passage of the weft thread carrier and the lugs of the plates of one group being located between the lugs of the plates of the other group, partly overlapping one another, so that the ends of the weft threads will be bent in succession by the lugs, the plates of one of said groups having a larger size than the plates of the other of said groups and being located between the plates of the other said group to form one series, the plates of larger size being provided with a slit which is overlapped by the lugs of the smaller plates and communicates at one end with the cutout of said plate and is lifted at the other end above the lugs of the smaller plates to form a through channel extending through the entire series of plates with the exit of the end of the weft thread after it has been beaten up to the fell of the cloth.

6. The device as claimed in claim **5,** wherein said passage for the exit of said end of said weft thread is located in the area where said cloth is engaged by the needles of the temples of said loom.

7. The device as claimed in claim **5,** wherein an arm resiliently biased toward the beat-up tooth of said disc of said shaft is mounted in front of the series of plates in the direction of the movement of said weft carrier, said arm being adapted to press the end of the weft thread against said tooth and to be raised to allow the cam means mounted on said shaft and said weft thread carrier to pass the weft thread carrier.

8. A device as claimed in claim **1,** wherein said device is mounted in said loom with the help of means for providing for adjustment of the position of said device along said reed.

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