

June 29, 1937.

G. E. REPASS

2,085,273

LOOM SELVAGE DEVICE

Filed Oct. 19, 1935

2 Sheets-Sheet 1

Fig. 1.

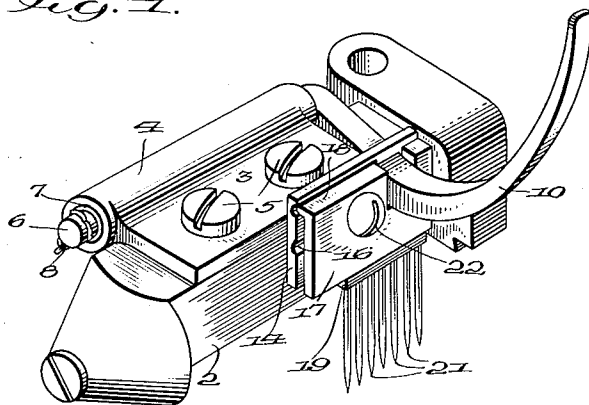
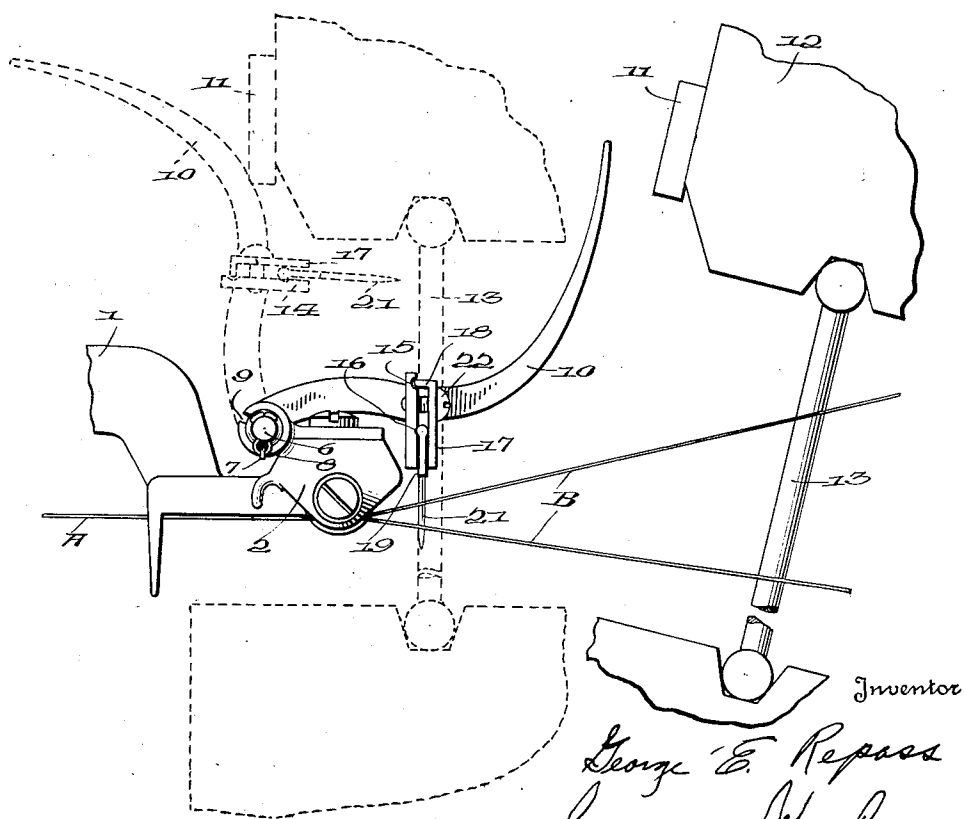


Fig. 2.



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Fig. 3.

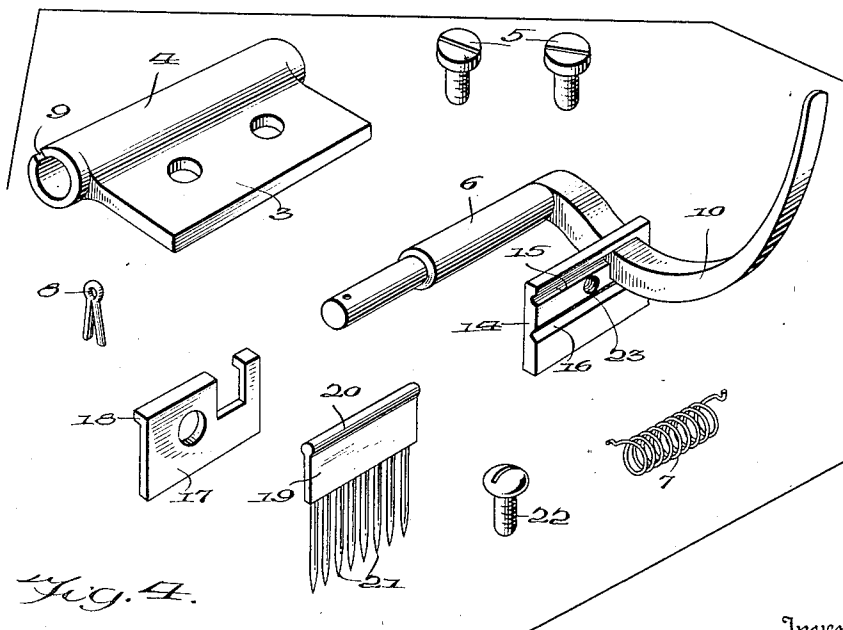
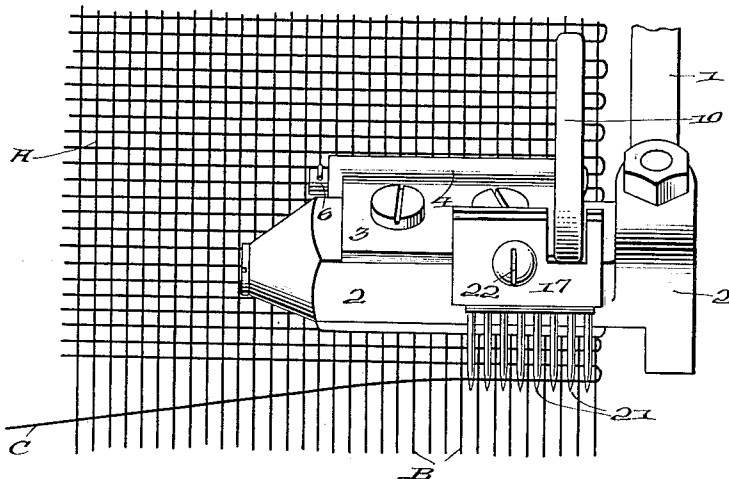


Fig. 4.

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2,085,273

LOOM SELVAGE DEVICE

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Application October 19, 1935, Serial No. 45,817

6 Claims. (Cl. 139—195)

This invention relates to an improvement in loom selvage devices to be used on the loom so as to provide for the weaving of fabric with the same appearance at the edges as it has in the center.

This invention relates to the making of a soft flat or loop selvage to be the same gauge and tensile strength as that of the body of the cloth, and more particularly to the weaving of cloth with a selvage suitable to be used in the rubber industry. With a selvage of this type, cloth used in the rubber industry can be coated and used to the edge without having the selvage trimmed off.

The invention eliminates all necessity of adding extra ends in the warp for the selvage. It is the general practice in weaving to add extra ends in the selvage to carry the strain or jerk of the filling as the shuttle is thrown across to the opposite side of the loom. I have eliminated the necessity of having the extra ends by placing on my device a comb which serves the same purpose of the extra ends by taking up the strain and the jerk of the filling thread, thus, protecting the warp thread at the edge of the fabric.

A further object of my invention is to protect the threads at or near the edge of the cloth so as to greatly reduce the percentage of breakage of the threads, thereby increasing the production of the loom. This is accomplished when the lay moves back from its beating up position causing the needles or comb of this device to project between the warp threads directly in back of the temple, and at the same time dropping back of the filling thread so that when the shuttle returns to the opposite side of the loom, a U will be formed around both the needles and the outer warp thread. Also, while this action is taking place, the comb or needles are guiding the warp threads uniformly to the temple at an adjusted gauge. Furthermore, the outside needle of this device serves as a gauge or a measuring instrument which assures the same length of filling in each pick of the cloth, thus giving a uniform width to the cloth.

With the use of this device applied or located variously as may be desired or most convenient, it is possible to weave a piece of fabric having the same selvage either looser or tighter than the body of the cloth.

The most convenient location for this device on the loom is on the top of each temple, being coincident with the respective edge of the cloth being woven.

I have illustrated a preferred embodiment of

my invention in the accompanying drawings, in which:

Fig. 1 is a perspective view of a temple head having my invention applied thereto.

Fig. 2 is an end elevation thereof, applied to the temple and showing the reed in the normal position, and in dotted lines, the pushed back position.

Fig. 3 is a front perspective view of the invention applied and showing its relation to the threads.

Fig. 4 is a disassembled perspective view of the parts of the invention.

Referring to Figs. 2 and 3, the usual loom temple is designated generally by the numeral 1, and having a temple head 2, supported at the forward end thereof.

Mounted on the temple head 2, is a supporting plate 3, having a bearing sleeve 4, at one edge thereof, and extending longitudinally of the temple head 2. The plate 3, is shown as secured by set screws 5, to the upper side of the head 2.

Journalled in the bearing sleeve 4, is a spindle 6, one end of which is reduced slightly to receive a coil spring 7, which is sleeved thereover within the bearing sleeve 4. One end of the coil spring 7, is fixed to the spindle 6, by a cotter pin 8, which passes through the extreme inner end of the spindle 6, and the other end of the coil spring 7, is fixed to the bearing sleeve 4, as for instance by being received in a slot 9, therein. The coil spring 7, thus has a tendency to return the spindle to its initial position if it should be rotated within the bearing sleeve.

The opposite end of the spindle 6, has a rearwardly and upwardly curved arm 10, fixed thereto and extending in position to be engaged by a contact plate 11, mounted on the front side of the reed cap 12, which is connected with the reed 13. This relation is shown clearly in Fig. 2.

Fixed to the arm 10, is a comb holder 14, having an opening therein receiving the arm 10, for rigid attachment thereto. The holder 14, has a longitudinal groove 15, in the front face thereof adjacent its upper edge and it also has an intermediate longitudinal groove 16, parallel with the groove 15. A clamp 17, cooperates with the holder 14, and has a flange 18, on the upper edge thereof in position to fit in the groove 15, when pressed against the holder. A comb 19, has a rib 20, on the upper side thereof to fit in the groove 16, in the comb holder 14, between said holder and the clamp 17, in order to support the comb thereby and to permit lateral adjustment of the comb. The comb 19, carries on

its lower edge a substantial number of needles 21, to enter between the warp threads and hold them in position during laying of the filling thread. A screw 22, passes through the clamp 17, and is threaded into an opening 23, in the holder 14, in order to secure the parts together and hold the comb in an adjusted position relative to the comb holder. By loosening this screw 22, the comb may be adjusted to give any desired effect on the selvage.

I have shown in Fig. 3, an exaggerated view of woven fabric at A and of warp threads B. The filling thread is designated C.

The parts are shown in full lines in Fig. 2 in their normal positions during laying of the filling thread. In Fig. 3, the shuttle has moved to the left, leaving the filling thread C, of U-shape around the needles 21, of the comb. Immediately after this, the reed 13, moves forward to beat up the weft, in the course of which movement the contact plate 11, pushes forward on the arm 10, thus lifting the needles 21, out of the way of the reed, as shown in dotted lines in Fig. 2. When the reed moves back to its full line position in Fig. 2, the coil spring 7, acts on the spindle 6, to move the arm 10, downward and carry the needles 21, of the comb into proper position between the warp threads and behind the beat up weft thread.

The use of the comb 19, with a substantial number of needles spaced apart a distance approximately corresponding with the spacing of the warp threads, protects the outer threads of the warp while the filling is being interlaced and takes the strain off of the outer warp threads. The comb is so designed as to work directly behind the temple, thus guiding the threads into the temple, making it much easier for the temple to hold the cloth or fabric with a uniform grasp.

The mounting of the comb permits its adjustment or replacement as desired so that either a loose or a tight selvage can be produced. By adjusting the comb, the length of each strand of filling is gauged as the shuttle draws it through the warp thereby giving a uniform width to the fabric without adding extra ends for the selvage and maintaining a smooth appearance of the selvage, preventing a rough or saw-tooth selvage. In fact the cloth has the same appearance at the edge as it has in the middle. In this way a soft flat selvage is produced of the same gauge and tensile as the body of the cloth which permits the use of the edge without loss and without the use of tape or ply selvage. This is particularly

important in the rubber industry because the selvage can be coated and used to the same extent as the middle portion of the cloth.

I claim:

1. In a loom selvage device, a support having a contact arm pivoted thereto, a holder carried directly by said arm and having a transverse guideway, and a loop retainer mounted on said guideway and adjustable transversely of the holder.

2. In a loom selvage device, a support having a bearing sleeve, a spindle journaled in said sleeve and having a contact arm attached directly thereto, a coiled spring telescoped over the spindle within the bearing sleeve and having one end attached to the spindle and the other end attached to the sleeve, and a loop retainer carried directly by said arm.

3. In a loom selvage device, a support having a bearing sleeve, a spindle journaled in said sleeve and having a contact arm attached directly thereto, a coiled spring telescoped over the spindle within the bearing sleeve and having one end attached to the spindle and the other end attached to the sleeve, a holder carried directly by said arm, and a comb supported by said holder.

4. In a loom selvage device, a support having a bearing sleeve, a spindle journaled in said sleeve and having a contact arm attached thereto, a coiled spring telescoped over the spindle within the bearing sleeve and having one end attached to the spindle and the other end attached to the sleeve, a holder carried directly by said arm, and a comb supported by said holder, said holder having a transverse guide therein for transverse adjustment of the comb relative to the holder.

5. In a loom selvage device, a support having a bearing, a spindle journaled in said bearing and having a contact arm attached thereto, resilient means acting on said contact arm, a holder carried directly by said arm, and a comb supported by said holder, said holder having a transverse guide therein for transverse adjustment of the comb relative to the holder.

6. In a loom selvage device, a support having a contact arm pivoted thereto and extending rearwardly and upwardly from the pivot in position to be engaged and operated by a lay, a clamp carried by said arm between the pivot and the free end of the arm, and a loop retainer received in and supported by the clamp and being slidably adjustable transversely in said clamp.

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