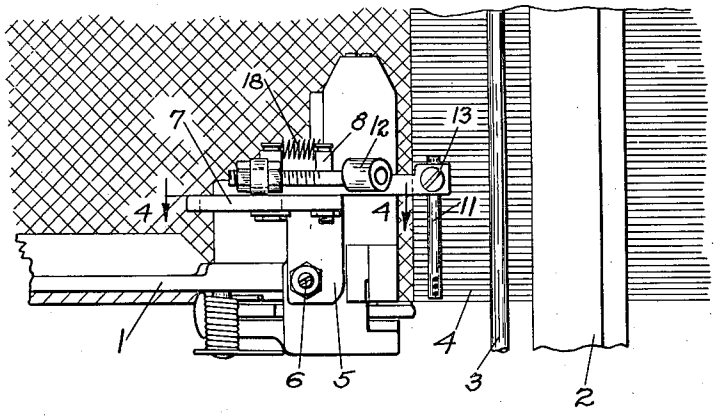
Sept. 2, 1941. C. D. BROWN 2,254,869

SELVAGE DEVICE FOR LOOMS

Filed Dec. 13, 1940

FIG. 1.



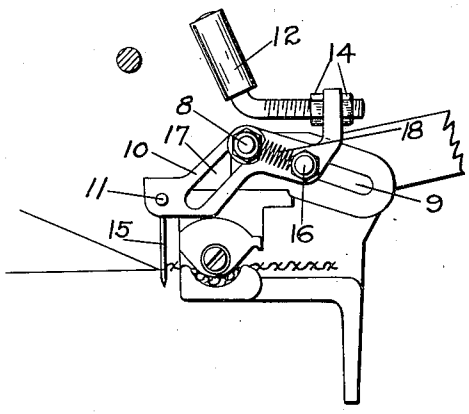


FIG. 2.

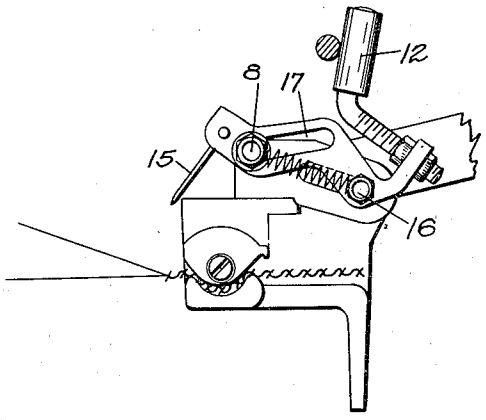


FIG. 3.

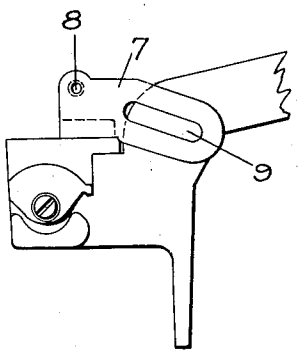


FIG. 4.

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SELVAGE DEVICE FOR LOOMS

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3 Claims. (Cl. 139—195)

This invention pertains to fly shuttle looms and more particularly relates to selvage devices therefor.

It is the general practice in weaving cloth to add extra ends in the selvage to carry the strain or jerk of the filling as the shuttle is picked across to the opposite side of the loom. To eliminate the necessity of such extra ends in the selvage, loom selvage devices are employed. Such devices usually include a needle or loop retaining member placed in the warp adjacent the selvage to take up the aforementioned strain or jerk of the filling. When the reed moves forwardly to beat the newly laid filling into the cloth, the needle or loop retaining device must be raised from the warp and moved to an out of the way position.

Accordingly it is a principal object of this invention to provide in a loom having a lay, a shuttle guard rail and a temple, a selvage device comprising a supporting member adapted to be secured to the temple and having a guideway therein, a movable needle carrying member mounted on the supporting member and having a projection thereon for engaging the guideway, the projection and guideway being so constructed and arranged as to provide for movement of the needle in an arc in a vertical plane whereby the needle will be raised from the warp and moved forwardly to an inoperative position.

This and other objects may be accomplished in the construction illustrated on the accompanying drawing, of which:

Fig. 1 is a plan view of a portion of a loom showing the right hand temple with my invention mounted thereon;

Fig. 2 is a side view of the device of my invention showing the needle in its operative position;

Fig. 3 is a view similar to that of Fig. 2 but showing the needle in its forward inoperative position; and

Fig. 4 is a view taken on line 4—4 of Fig. 1.

As the present invention relates only to a particular feature in the construction and operation of the loom it is considered sufficient to illustrate and describe only those parts of the loom directly concerned with a preferred embodiment of the invention.

A usual type of temple 1, a portion of the lay 2, shuttle guard rail 3 and the warp threads 4 are shown in their usual relation.

The device of my invention is adapted to be attached to loom temples. As the construction is generally similar at both sides of the loom it is sufficient only to show the device as attached to one temple, that shown being the right hand temple.

The device may comprise an attaching and supporting member having an attaching portion 5 secured to the temple 1 by means of bolt 6 and a supporting member 7. Supporting member 7 extends longitudinally of the loom and has a laterally projecting pin 8 and a rearwardly upwardly inclined elongated slot or guideway 9.

A reciprocatory member 10 is slidably mounted on the supporting member 7. The reciprocatory member 10 has a laterally extending needle bar 11 adjustably mounted on its rear end and an upstanding bunter 12 adjustably mounted on its forward end. A set screw 13 locks the needle bar in adjusted position. Lock nuts 14 lock the bunter in adjusted position. A single needle or a plurality of needles 15 are fixedly attached to needle bar 11. Reciprocatory member 10 has intermediate its ends a laterally extending pin 16 and a forwardly inclined elongated slot or guideway 17. The pin 8 extending from the supporting member 7 engages in slot 17 in the reciprocatory member 10 while the pin 16 extending from the reciprocatory member 10 engages in the slot 9 in the supporting member 7. The pin and slot connections act as cam means for guiding the movement of member 10.

A coiled spring 18 has one end attached to pin 8 and the other end attached to pin 16. Spring 18 acts to hold reciprocatory member 10 in its rear position. When the reciprocatory member is in its rear position, pin 8 is at the forward end of slot 17 and pin 16 is at the rear end of slot 9. Upon forward movement of reciprocatory member 10 the pin 8 engaging in slot 17 guides the movement of the rear end of member 10 and pin 16 engaging in slot 9 guides the movement of the forward end of member 10. The two slots are so disposed in angular relation to each other as to cause the rear end of member 10 to travel through an arcuate path, the first part of the movement of the rear end of member 10 being substantially vertical and then changing into a substantially horizontal movement.

The operation of the device is as follows:

On the rearward beat of the lay, spring 18 moves reciprocatory member 10 rearwardly, thereby moving the needles 15 downwardly into operative position in engagement with the warp. On the forward beat of the lay, shuttle guard rail 3 engages the bunter 12 and moves reciprocatory member 10 forwardly, thereby raising the needles 15 from the warp and moving them through an arc forwardly and upwardly to inoperative posi-

tion where they will not interfere with the reed.

The needles when in operative position in engagement with the warp take the strain or jerk of the filling as the shuttle is picked across to the opposite side of the loom. It should be noted that the needle bar 11 is adjustable laterally of the warp, this adjustment is provided so that the needles may be positioned to produce a loop selvage.

Having thus fully disclosed the preferred embodiment of my invention, I claim:

1. In a selvage device for a fly shuttle loom including a lay having a shuttle guard rail mounted thereon, the combination of a supporting member having a guideway therein, a movable member slidably mounted on said supporting member for movement longitudinally of the loom, said movable member having a needle adjustably mounted on its rear end and a projection intermediate its ends for engagement with said guideway, said guideway and said projection being so constructed and arranged as to guide said movable member through an arc in a vertical plane, an adjustable bunter mounted on the forward end of said movable member, said bunter being adapted to be engaged by said shuttle guard rail for moving said movable member in one direction and resilient means for moving said movable member in the opposite direction.

2. A loom selvage device comprising a supporting member having a projection at one end and a guideway at the other end, a needle carrying member slidably mounted on said supporting member and having a guideway adjacent one end and a projection adjacent the other end, said projection on said supporting member engaging in said guideway in said needle carrying member and said projection on said needle carrying member engaging in said guideway on said supporting member whereby upon movement of said needle carrying member said needle will be moved through an arc in a vertical plane.

3. A selvage device for a loom including a lay and a shuttle guard rail, said device comprising a supporting member having a laterally extending projection adjacent one end and a downwardly inclined guideway adjacent the other end, a movable member having a laterally extending projection adjacent one end and an upwardly inclined guideway adjacent the other end, a needle mounted on the rear end of said movable member, said projection on said supporting member engaging in said guideway on said movable member and said projection on said movable member engaging in said guideway on said supporting member whereby upon movement of said movable member said needle will be moved through an arc in a vertical plane, a bunter adjustably connected to the forward end of said movable member, said bunter being adapted to be engaged by said guard rail on the forward beat of the lay for moving said movable member forward, a coiled spring connected at one end to said movable member and at the other end to said supporting member for moving said movable member rearward.

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