The object of the invention is to provide improvements in tape selvage harnesses, and more particularly in the hooks by which the Eddey bar-supporting element is operatively connected to the elevating and depressing straps of a loom, this application comprising a division of Serial No. 344,096, filed July 5, 1940.

Another object is to provide an improved snap hook for the purpose mentioned, such hook comprising essentially a shank having an aperture, a reversely directed hook portion of the terminal of which is spaced from and preferably parallel with said shank, and a yieldingly positioned tongue carried by the opposite portion of said shank and normally positioned against said terminal portion, the free end portion of said tongue being provided with a laterally directed lug which extends axially through the aperture in said shank and normally opposes removal of a bar-supporting bail from said hook portion, said tongue upon being shifted towards said shank operating to withdraw said lug from the path and permit the removal of said bail.

A further object is to form the shank, the hook portion, the tongue and the lug from a single integral piece of sheet or strap metal, having sufficient resiliency to insure said tongue normally pressing against said hook portion, while the junction of said shank and said tongue is preferably shaped in the form of a closed eye, through which extends a connecting hook or equivalent means for usually detachably securing the improved tape selvage harness directly to the elevating and depressing straps of a loom.

Still another object is to provide in such an improved hook a slightly reversely directed lug, which is angularly disposed to a small degree with respect to a plane extending perpendicularly to the longitudinal axis of the shank, so that any loose motion of the ball towards the terminal of said hook portion upon impinging against said lug will tend to force said tongue against rather than away from said terminal portion, thereby positively increasing the degree with which said lug retains said ball within said hook portion until manual shifiting of said tongue towards said shank, against the resiliency of the shank-end-tongue connection, operates to withdraw both tongue and lug from the path taken by said bail when being released from said hook.

And a still further object, broadly speaking, is to provide in this particular art a hook, which can be readily and efficiently operated by the fingers of only one hand, thereby freeing the other hand of the operator to engage and shift said ball from said hook, and at the same time providing a hook in which the tongue and its lug are wholly contained within the forward-and-rear or transverse limits of said shank and said hook portion.

With the objects thus briefly stated, the invention comprises further details of construction and operation, which are hereinafter fully described in the following specification, when read in conjunction with the accompanying drawing, in which Fig. 1 is a front elevational view of a selvage harness unit illustrating one embodiment of the invention; Fig. 2 is an enlarged fragmentary side elevational view of the upper part of the same; Fig 3 is a view similar to Fig. 2, except that the resilient tongue of the snap hook has been depressed to permit the release of the bail from said hook; Fig. 4 is an enlarged fragmentary lower portion of the hook as shown in Figs. 2 and 3 with the bail in operative position; and Fig. 5 is a fragmentary rear elevational view of the lower portion only of said hook.

Referring to the drawing, an improved selvage harness is shown as comprising a pair of heddle bars 1, supported by and between the central portions of which bars are a series of heddles 2, upon the opposite sides and spaced from which are relatively stiffer protective side rods 3, also engaging and under tension between the bars 1. Each of said heddle bars is also engaged by the bifurcated end portions 4 of the spaced arms 5 of a bail, which latter also comprises a transversely extending, central, arm-connecting portion 6, of which said arms comprise integral extensions. This central portion 5 of said bail normally extends though the hooked end portion 7 of a snap hook, which also comprises a preferably straight shank 8, terminating at one end in the reversely bent terminal portion 9, and at its other end merging through a looped portion 10 into a resiliently positioned tongue 11, which tongue terminates in an angularly disposed, transversely narrowed lug 12. In the outer portion of said tongue, its free end portion abuts against the hook terminal 5, while the lug 12, preferably normally extending slightly into a guide aperture 13 in said shank, operates to prevent the central portion 5 of said bail from becoming accidentally released from the snap hook as a whole. In order to release the bail from said hook, the tongue 11 is depressed towards the shank 8, thereby simultaneously shifting the lug 12 through the aperture in said shank, as shown in Fig. 3, and thereby permitting the free re-
mval of said bail from said hook and the insertion into said hook of either the same or another such bail when desired. In forming the improved hook and particularly the tongue and lug portions of the same, said lug is preferably bent laterally and then slightly reversely (Figs. 2, 3 and 4), so that when in its normal operative position, spanning the space between the shank and terminal portions, it will be disposed to a small degree angularly with respect to a plane extending perpendicularly to the longitudinal axis of said shank. It is then obvious that any upward movement of the bail with respect to the hook, as viewed in Figs. 2, 3 and 4, will tend to force the tongue more tightly against, rather than away from, said terminal portion, with the result that an even more positive imprisonment of said bail is effected within said hook.

Extending through the loop 10 of said snap hook is the transversely arranged portion 14 of any suitably shaped strap-connecting hook 15 or the like, by means of which the harness as a unit is detachably connected to and between the usual elevating and depressing straps (not shown). It should also be noted that the loop 10 preferably comprises a substantially completely closed eye, so that the strap-connecting hook 15 is thereby firmly secured thereto, without the need for lengthening and jangling though with a sufficient degree of free pivotal relationship, while at the same time the adjacent end portions of the shank and tongue are brought into close, parallel juxtaposition, and the tongue is preferably provided at an intermediate point 15 with a slight angular deflection outwardly towards said hook terminal, the point of which deflection forms a pivot about which the free end portion of said tongue oscillates, as indicated by the dot-and-dash lines, without varying the pressure upon the connecting-hook 15.

In the operation of this device, it will be clearly obvious that the tongue can be retracted towards said shank by using the thumb and fingers of only one hand to pinch them together, while the other hand of the operator is used to grip or otherwise engage the bail and slip it from said hook, whereas most if not all other hooks of this class and employed for similar work require both hands of an operator to open the hook, while a helper is required to shift the bail therefrom, with similar difficulty encountered in reinserting a bail in said hook.

Having thus described my invention, what I claim and desire to protect by Letters Patent of the United States is:

1. The combination of a selvage harness and a supporting bail, with a snap hook normally surrounding the central portion of said bail, the shank of said hook being provided with an aperture, a resiliently positioned retaining tongue having an integral laterally extending lug operative to normally prevent said bail from shifting longitudinally with respect to said hook, said lug being retractable into said aperture when said tongue is retracted to release said bail.

2. The combination of a selvage harness and a supporting bail, with a snap hook normally surrounding the central portion of said bail and provided with a resiliently positioned retaining tongue having a laterally extending lug, operative to normally prevent said bail from shifting longitudinally within said hook, said lug being retractor in the path of said bail when said tongue is retracted to release said bail, said snap hook being provided in one end with an eye, through which extends a connecting-hook by means of which said snap hook is attached to the elevating or depressing straps of a loom.

3. The combination of a selvage harness and a supporting bail, with a snap hook normally surrounding the central portion of said bail and provided with a resiliently positioned retaining tongue having a laterally extending lug, operative to normally prevent said bail from shifting longitudinally within said hook, said lug being retractor in the path of said bail when said tongue is retracted to release said bail, said snap hook being provided in one end with an eye, and a connecting-hook by means of which said snap hook is attached to the elevating or depressing straps of a loom, said last-named hook comprising a transversely arranged shank, which extends slidably through said eye to provide a pivotal relationship between said snap hook and said connecting-hook.

4. The combination of a selvage harness and a supporting bail, with a snap hook comprising a shank having an aperture, a reversely directed hook carried by one end of said shank and normally receiving said bail, a tongue carried by a portion of said shank spaced from said bail and normally yieldingly engaging the outer terminal portion of said hook to imprison said bail therein, and a lug of less width than and carried by said tongue and normally operative to limit motion of said bail within said hook, said lug being slidably retractor in the path of said tongue when said tongue is shifted towards said shank.

5. The combination of a selvage harness and a supporting bail, with a snap hook comprising a shank having an aperture, a reversely directed hook carried by one end of said shank and normally receiving said bail, a tongue carried by a portion of said shank spaced from said hook and normally yieldingly engaging the outer terminal portion of said hook to imprison said bail therein, and a lug of less width than and carried by said tongue and normally operative to limit motion of said bail within said hook, said lug being slidably retractor in the path of said tongue when said tongue is shifted towards said shank.

6. The combination of a selvage harness and a supporting bail, with a snap hook normally surrounding the central portion of said bail and provided with a resiliently positioned retaining tongue having a laterally and slightly reversely extending lug, operative to normally prevent said bail from shifting longitudinally within said hook, said lug being retractor in the path of said bail when said tongue is retracted to release said bail, and said lug when impinged by said bail tending to force said tongue more positively against the outer terminal portion of said hook.

7. The combination of a selvage harness and a supporting bail, with a snap hook comprising a shank having an aperture, a reversely directed hook carried by one end of said shank and normally receiving said bail, a tongue pivotally carried by a portion of said shank spaced from said hook and normally yieldingly engaging the outer terminal portion of said hook to imprison said bail therein, and a lug of less width than and carried by said tongue and normally operative.
to limit motion of said bail within said hook, said lug being slidably retractable through said shank aperture when said tongue is shifted towards said shank, and said shank, tongue and hook comprising integral parts of a single piece of sheet or strap metal.

8. The combination of a selvage harness and a supporting bail, with a snap hook comprising a shank having an aperture, a reversely directed hook carried by one end of said shank and normally receiving said bail, a tongue pivotally carried by a portion of said shank spaced from said hook and normally resiliently engaging the outer terminal portion of said hook to imprison said bail therein, and a lug of less width than and carried by said tongue and normally retractable through said shank aperture when said tongue is shifted towards said shank, and said shank, tongue and hook comprising integral parts of a single piece of sheet or strap metal of substantially the same width throughout except for said lug, and the junction of said shank and said tongue comprising a closed eye through which pivotally extends a connecting hook, by means of which said snap hook is attached to the elevating and depressing straps of a loom.

9. The combination of a selvage harness and a supporting bail, with a snap hook comprising a shank having a hook end and a tongue movable towards and away from said shank and normally cooperating with said hook end to imprison said bail therein, and a lug carried by said tongue and extending angularly towards said shank, in such manner that impingement of said bail against said lug tends to force said tongue more positively into cooperation with said hook end.

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