

(No Model.)

J. C. HACKETT.
DOUBLE LOOP BUCKLE.

No. 385,618.

Patented July 3, 1888.

Fig. I.

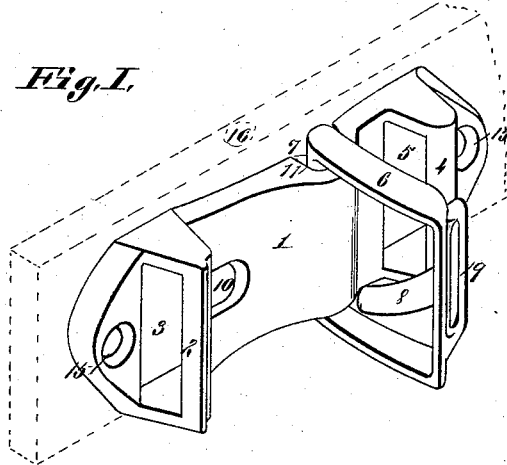


Fig. II. *Fig. III.*

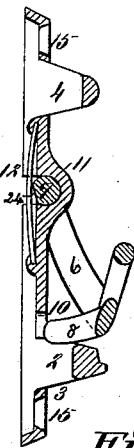
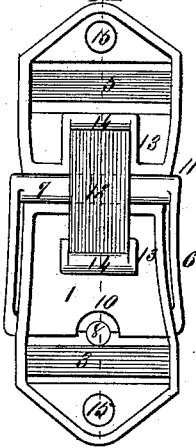


Fig. IV.

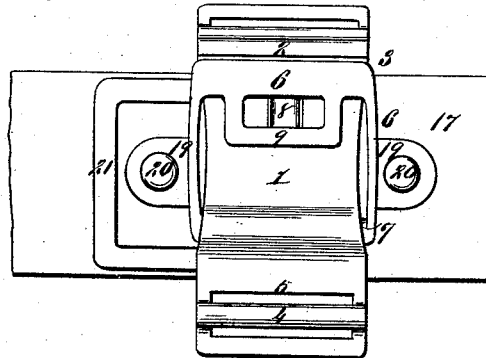


Fig. V.

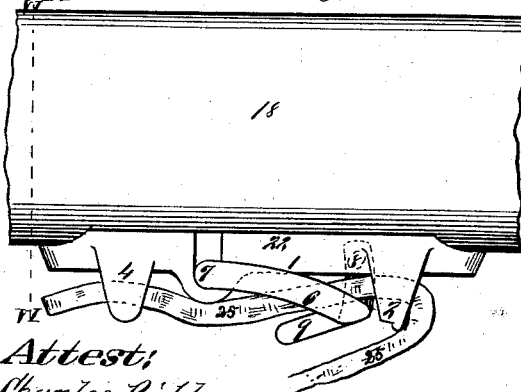
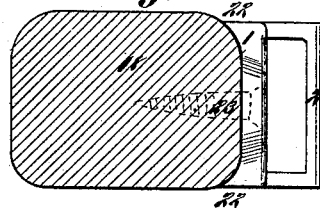


Fig. VI.



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UNITED STATES PATENT OFFICE.

JOHN C. HACKETT, OF BELLEVILLE, ILLINOIS.

DOUBLE-LOOP BUCKLE.

SPECIFICATION forming part of Letters Patent No. 385,618, dated July 3, 1888.

Application filed March 8, 1888. Serial No. 266,571. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. HACKETT, of Belleville, in the county of St. Clair and State of Illinois, have invented a certain new and useful Improvement in Detaching Double-Loop Buckles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

- 10 Figure I is a perspective view of the buckle when used as a trace attacher, detacher, and adjuster, with a detail of the hame-tug shown in dotted lines, to which tug it may be riveted, the rivets passing through the holes provided in the ends of the buckles. Fig. II is a back view of the buckle and shows the short retention-strap which holds the swinging bail of the buckle in its bearing. Fig. III is a section taken on line III III, Fig. II, and shows the pivot-arm of the buckle-bail flattened behind to secure for it a locking-seat on the retention-strap when the buckle is closed. Fig. IV is a front view of the buckle when used as a back-band attacher, detacher, and adjuster. 25 It also shows means for the attachment and adjustment of the billet that secures the belly-band and the attachment-lugs, through which, when used in this capacity, the buckle is riveted to the trace or tug-strap of the harness. 30 Fig. V is a detail of one of the shafts, showing also the buckle secured thereto in its capacity as a breeching attacher, detacher, and adjuster; and Fig. VI is a section taken on line VI VI, Fig. V, and shows the means of securing the buckle to the shafts.

This invention relates to devices for facilitating the attachment, detachment, and adjustment of the associate parts of a set of harness together and to the shafts with which it is connected; and the invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, in which similar figures of reference indicate like parts in all the views, 1 represents the strap of my combination device.

2 is the front loop; 3, the slot in the strap beneath said loop; 4, the rear loop, and 5 the slot in the strap beneath said loop.

50 6 is the swinging buckle-bail; 7, its pivot-

arm; 8, the tongue of the buckle; 9, the loop-handle above said tongue, and 10 the slotted seat for said tongue in said strap.

11 is the recess or corrugation in the strap in which the pivot-arm of the buckle-bail has its bearing; 12, the short retention-strap that locks the said bail in its bearing.

13 are the three sided projecting lugs at the back of the strap that fence in the ends of the retention-strap, and 14 are extension-tongues at the outer ends of said lugs, which are bent down on the retention-strap to lock it in its seat and re-enforce its retention of the buckle-bail in its bearings.

15 are the countersunk holes in the ends of the strap 1, by which to secure it by rivets relatively either to the hame-tug 16 or the trace 17 when the buckle is used as a trace attacher, detacher, and adjuster, (see Fig. I,) except when it is preferred to make the initial attachment by the same buckle that secures the corresponding part, as hereinafter described. When used as a back and belly band attacher, detacher, and adjuster, (see Fig. IV,) the said holes may be dispensed with and perforated lugs 19 be cast integral on the sides of the strap or otherwise suitably secured there, as shown in Fig. IV. These perforated lugs provide the means for securing the buckle to the tug-strap or trace with which it is desired to connect the back and belly bands. Rivets 20 pass through said perforations and through said strap or trace, to which they provide a riveted attachment of the buckle; also, when used in this capacity, a side loop, 21, is provided, which may be cast integral with the strap 1. This side loop provides the means for the breeching attachment when the device is used on double harness.

When used as a breeching attacher, detacher, and adjuster for single harness, (see Figs. V and VI,) exactly the same form of metal loop-buckle is used as for the trace attachment, except that the sides of the strap are provided with bevel-flanged edges 22, that engage snugly with the bevel edge of the shaft, to which it is firmly secured by the screws 23, that pass through the countersunk holes aforesaid at the ends of the buckle-strap and are screw-seated in the shaft. (See Fig. VI.)

This application of the attachment avoids the objectionable necessity of wrapping the breeching or holdback strap around the shaft.

I have described the buckle-loop strap as riveted relatively to the hame-tug or trace, according as it is preferred to first permanently attach it to the one or the other; but I do not confine myself to that means of initial permanent attachment, for I sometimes prefer to dispense with the riveting and utilize the same locking-buckle for the attachment of its loop-strap to both the hame-tug and trace, which it couples together, in which case both the hame-tug and trace have buckle-holes punched in them, so as to be able to adjust both of them to the length required, as will be described in the attaching operation of the device.

The pivot-arm of the buckle-bail is provided with a flat side, 24, that, when the buckle is operative, fits against the face of the short retention-strap 12, (that holds said pivot-arm in its bearing,) and thus locks the buckle and prevents its tongue from jerking out from its seat.

I will now describe the operation of my invention and refer to the facilities that it affords for the attachment, detachment, and adjustment of the several parts of the harness that it unites—viz., as a trace attachment, a back-strap and belly-band attachment, and a breeching attachment.

If not riveted to said hame-tug, as previously described, the short hame-tug strap is passed through the rear loop, then under the hinged buckle-bail, and lastly through the front loop, and adjusted to the length desired, with care that one of the punched holes in the strap is located opposite the perforation or slot in the metal strap that seats the tongue of the buckle. The perforated end of the trace is then passed through the front loop, then under the hinged buckle-bail, and lastly through the rear loop, adjusting it longitudinally to the length of trace required, having a care at the same time that the buckle-holes in the trace shall correspond with those in the tug. The hinged buckle-bail is then turned down and its tongue made to engage in the corresponding holes in both trace and hame-tug, and the flat face on the pivot-arm of the hinged buckle-bail then, engaging against the face of the retention-strap, locks the said buckle in its seat. When it is preferred to make the initial attachment (that is, the attachment of the first member to the coupling) by riveting the metal looped strap thereto, then the second part in the union (which may be, as just described, the trace) is alone required to be passed through the loops and under the hinged buckle-bail; but even in that contingency the tongue of said buckle-bail also passes through a perforation in said first part and re-enforces the attachment of the coupling.

Second, in its use as a back-band billet and belly-band attachment, the perforated side lugs of the metal loop-strap having been riv-

eted to the trace or tug, the end of the billet (that buckles to the belly-band, which is provided with a series of punched holes, so as to adjust the belly-band to the size of the horse that wears the harness) is first passed through the rear loop, then under or through the hinged buckle-bail and over the corrugated bridge that rides above the bearing of the bail-buckle, and lastly through the front loop until the one desired of its buckle-holes corresponds with the perforate seat of the buckle-tongue in the metal loop buckle-strap. The tug end of the back-band (which also has a series of holes punched in it to adjust it to the length required) is then passed through the loops and hinged buckle-bail in the reverse direction to that just described of the billet until the desired length of insertion is attained to adjust the length of the back-band to the size of the horse that wears it and to adjust the buckle-holes to those of the billet. The hinged buckle-bail is then closed down and the short buckle-tongue from its front arm is seated in the holes of both the back-band and billet, and the flattened face of the pivot-arm simultaneously falls into coincidence with the face of the retention-strap, and so locks the hinged bail-buckle in its seat, although it is again, when desired, unlocked with sufficient ease when projected from its flat bearing to its rock-bearing against the retention-strap.

Third, in its capacity as a breeching attachment, the metallic straps as thus used (see Figs. V and VI) are provided with bevel side edges that cling closely to the bevel inside of the shafts, to which they are secured by screws. The attachment ends of said breeching-straps, that have a series of holes punched in them, pass around and through the front loop, then through the hinged bail-buckle, over the corrugated bridge that rises above the bearing of the bail-buckle, and lastly through the rear loop, and are drawn through to adjust the holdback to the required length. The hinged bail-buckle is then pressed down, and its tongue engages in one of the holes in the strap, and is there locked, as heretofore described.

The metal strap may be made of malleable cast-iron, brass, silver, or any other suitable metal.

I claim as my invention—

1. In an attachment device for harness, the metal strap, a loop at each end of said strap, and the intermediate buckle between said loops, substantially as and for the purpose set forth.

2. In an attachment device for harness, the metal strap, a loop at each end of said strap, the swinging bail hinged between said loops, and the buckle-tongue on said bail, substantially as and for the purpose set forth.

3. In an attachment device for harness, the combination of the metal double-loop strap, the hinged bail with its pivot-arm that is provided with its bearing in the corrugation of

said strap between its loops, the buckle-tongue on the front arm of said bail, which engages in the perforated seat provided for it in said strap, and the retention-strap that holds said pivot-arm of the bail in its bearings in said corrugation of the strap, substantially as and for the purpose set forth.

4. In an attachment device for harness, the combination of the metal double-loop strap, the hinged bail with its pivot-arm, that has bearing in the corrugation between the loops of said strap, the buckle-tongue on the front arm of said hinged-bail, the retention-strap that holds the pivot-arm in its bearing, the projected lugs that clinch down on and hold the retention-strap, and the flattened face of the pivot-arm that fits to the retention-strap when the buckle is closed, and so locks it in its operative position, substantially as and for the purpose set forth.

5. In an attachment device for harness, the combination of the double-loop metal strap, the buckle bail hinged in its corrugated seat to said strap between said loops, the retention-strap that holds the pivot arm of said bail in its seat, the flattened face of said pivot-arm that engages with the flat face of the retention-strap to lock the buckle, the perforated side lugs to said metal loop-strap, the rivets that pass through said lugs and secure said metal strap to the harness, and the metal side loop integral with the metal strap for the attachment of the breeching when used in double harness, substantially as and for the purpose set forth.

JOHN C. HACKETT.

In presence of—

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SAML. KNIGHT.