O. HANDFIELD.

SEPARABLE HARNESS BUCKLE.

APPLICATION FILED FEB. 15, 1911.

1,004,422. Patented Sept. 26, 1911.

Fig. 1.

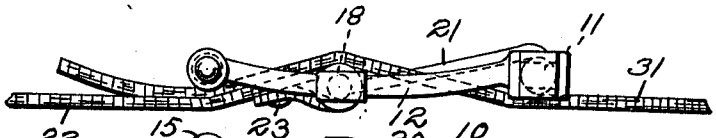
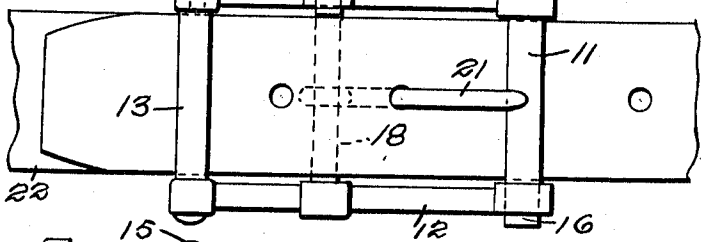


Fig. 2.



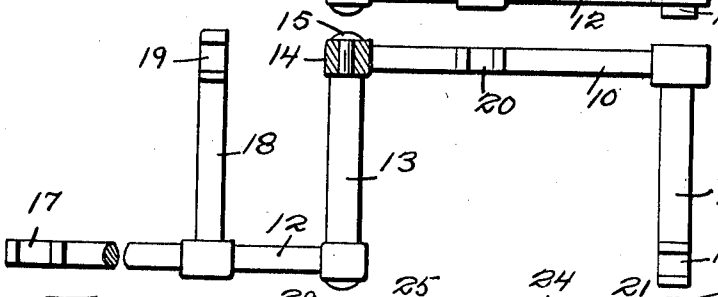


Fig. 3.

Fig. 4.

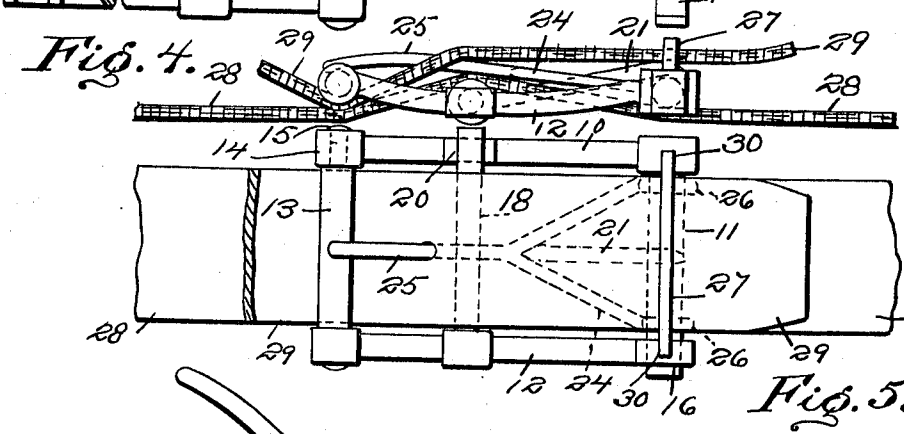
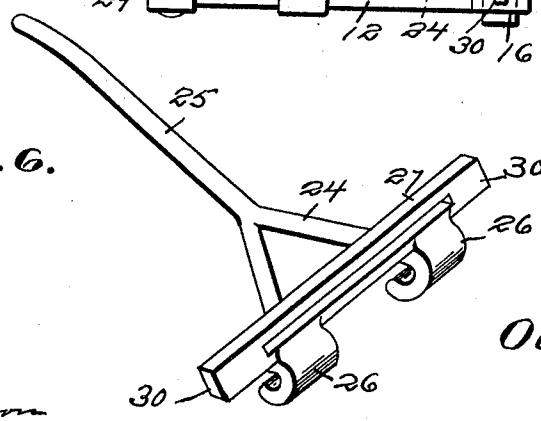


Fig. 5.

Fig. 6.



Witnesses

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SEPARABLE HARNESS-BUCKLE.

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To all whom it may concern:

Be it known that I, OLIVER HANDFIELD, a citizen of the United States, residing at Montreal, Province of Quebec, Canada, have invented certain new and useful Improvements in Separable Harness-Buckles, of which the following is a specification.

This invention relates to improvements in harness buckles designed for use upon different portions of the harness, and has for one of its objects to provide a simply constructed separable buckle in which the parts may be separated to permit the straps to be coupled to and disconnected therefrom without the necessity for drawing the straps lengthwise through the buckle members.

Another object of the invention is to provide a device of this character which may be employed for coupling two straps in the ordinary manner and which is provided with an attachment whereby the device may be employed for coupling one strap to another intermediate the ends, as for instance the cross reins in a double harness.

With these and other objects in view the invention consists in certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claims, and in the drawings illustrative of the preferred embodiment of the invention. Figure 1 is a side elevation of the improved buckle in its simpler form; Fig. 2 is a plan view of the parts shown in Fig. 1; Fig. 3 is a plan view of the parts shown in Figs. 1 and 2 in their separated position; Fig. 4 is a side view similar to Fig. 1, illustrating the improved device arranged as a cross rein buckle; Fig. 5 is a plan view of the parts shown in Fig. 4; Fig. 6 is a perspective view of the auxiliary tongue employed in the modified structure shown in Figs. 4 and 5.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

The improved device comprises in general a buckle frame formed in two portions, one portion consisting of a main stationary side member 10 and an integral end member 11, and a movable side member 12 having an integral end member 13. The side member 10 is provided at the end opposite to the end 11 with a socket 14 in which the free end of the end member 13 is mounted for rotation, as shown at 15. The free end of the end member 11 is provided with a transverse recess 16, while the free end of the movable side member 12 is provided with a similar recess 17. By this arrangement the recess 17 engages in the recess 16 when the side member 12 is disposed in parallel relations to the side member 10, and thus locks the free ends of the members 11—12 from lateral movement, and forms an effectual coupling between the members.

Extending from the side member 12 intermediate the ends thereof is a cross bar 18 having a recess 19 in its free end, while the side member 10 is provided with a corresponding recess 20 intermediate its ends. The recess 19 is designed to enter and interlock with the recess 20 when the side member 12 is disposed in parallel relation to the side member 10, as illustrated in Figs. 1 and 2. By this arrangement it will be obvious that when the parts are disposed in interlocking engagement a buckle frame is produced in rectangular form with an intermediate cross bar 18.

Mounted to swing upon the cross bar 18 is a tongue member 21 which is designed to engage by its free end with the end member 11, as shown. By this arrangement it will be obvious that a simply constructed buckle frame is produced whereby two straps may be coupled and with one of the straps adjustable by supplying it with the usual spaced apertures to receive the tongue 21.

When the buckle is to be applied, one of the straps, represented at 22, is engaged around the bar 18 and riveted or otherwise sewed in the usual manner, as represented at 23. The other strap 31 is then threaded beneath the end bar 11 and over the bar 18 and the portion of the strap which passes around the same and the end passed beneath the end bar 13, as shown in Figs. 1 and 2. By this means when strain is applied the tongue 21 will be pressed firmly upon the end member 11, and as the cross bar 18 is integral with the side member 12 the latter together with the cross bar will be maintained in position and the frame members prevented from being disconnected, and the greater the strain which is applied the more firmly will the parts be held together. When the straps are to be disconnected it will be obvious that it is only necessary to relieve the strain when the member 12 may

be swung upon its pivot 15 and the straps thus disconnected and without the necessity for drawing them lengthwise through the buckle frame. This is an important advantage and materially increases the efficiency and utility of the improved device.

In Figs. 4, 5 and 6 the improved device is shown arranged to connect one strap to another intermediate its ends, for instance as a cross rein buckle, and when thus employed an auxiliary tongue device will be applied to the end member 11. This auxiliary tongue comprises a Y shaped member 24 having a tongue 25 extending from one end and with eyes 26 at their other ends for swingingly engaging upon the end member 11. The Y member together with its tongue and eyes will be formed of malleable metal and the eyes will be first formed in open condition and adapted to be closed around the end member 11 by the blow of a hammer or other implement. The eyes 26 are connected by a transverse bar 27 which forms a keeper, and is provided with a slot to receive the billet of the strap 29 as shown. The main driving rein, represented at 28, is threaded beneath the end members 11—13 and over the bar 18 and engaged with the tongue 21 in the ordinary manner, while the cross rein, represented at 29, is threaded beneath the end member 13 and engaged by the tongue 25 and passed by its terminal through the slot in the keeper 27, as shown in Fig. 4. By this means it will be obvious that when the strain is applied to the reins the main drive rein will exert its force to retain the tongue 21 in position and likewise hold the side member 12 in engagement with the end member 11, while the cross rein 29 will likewise exert its force to hold the parts in engagement, thus supplementing the strain of the main rein. The keeper 27 is preferably extended at the ends, as shown at 30, and bears upon the portion of the side member 12 which is located opposite the recess 17, and thus assists in holding the parts in engagement.

The improved device is simple in construction, can be inexpensively manufactured of the same material which is employed in the manufacture of ordinary harness buckles, and may be plated, japanned, or otherwise treated or ornamented so that the improved buckle will correspond in appearance with other metal portions of the harness.

Having thus described my invention, what I claim as new is:—

1. A buckle frame formed of a stationary L-shaped section including a side member and an end member, a movable L-shaped section including a side member and an end member, the end member of said movable frame section being pivotally connected to the side member of the stationary frame section and the side member of the movable frame section resting upon the end member of the stationary frame section, a cross bar connected to the side member of the movable frame section and resting upon the side member of the stationary frame section, and a tongue swinging upon the cross bar and resting when in closed position upon the stationary frame section.

2. A buckle frame formed of a stationary L-shaped section including a side member and an end member, a movable L-shaped section including a side member and an end member, the end member of said movable frame section being pivotally connected to the side member of the stationary frame section and the side member of the movable frame section resting upon the end member of the stationary frame section, a cross bar connected to the side member of the movable frame section and resting upon the side member of the stationary frame section, a tongue swinging upon the cross bar and resting when in closed position upon the stationary frame section, a slotted bar extending over the tongue and projecting at its ends over the adjacent terminals of the side members, means for pivotally connecting said slotted bar to the end member of the stationary frame section, and another tongue connected to said slotted bar and resting upon the end member of the movable frame section.

In testimony whereof, I affix my signature in presence of two witnesses.

OLIVER HANDFIELD. [L. S.]

Witnesses:

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