

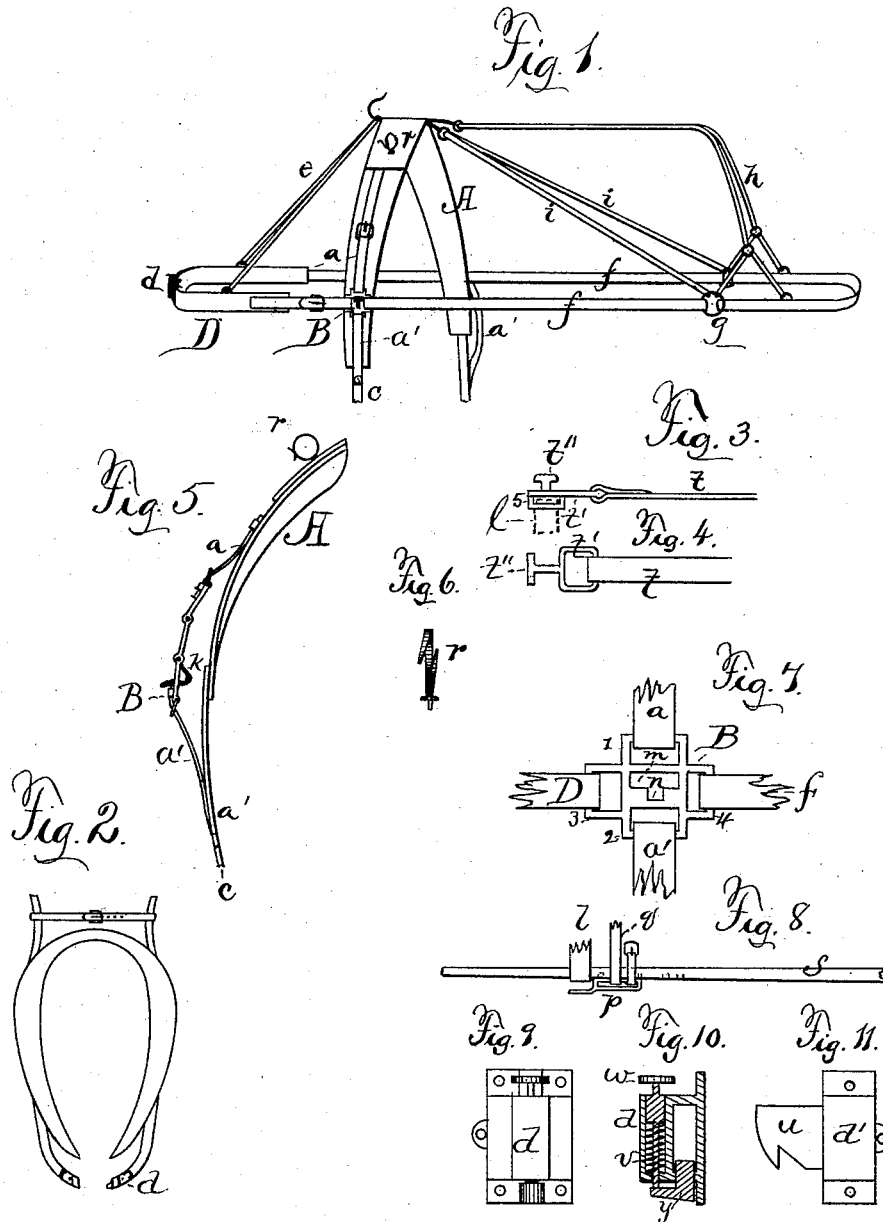
(No Model.)

R. H. COATSWORTH.

HARNESS.

No. 347,229.

Patented Aug. 10, 1886.



Witnesses:
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UNITED STATES PATENT OFFICE.

REUBEN H. COATSWORTH, OF BUFFALO, NEW YORK.

HARNESS.

SPECIFICATION forming part of Letters Patent No. 347,229, dated August 10, 1886.

Application filed December 21, 1885 Serial No. 186,260. (No model.)

To all whom it may concern:

Be it known that I, REUBEN H. COATSWORTH, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Harness; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The object of this invention is to simplify the construction of harness and facilitate putting it on or off a horse; also, in case of accident, to release the horse from the wagon without the delay of unbuckling so many straps as required in ordinary harness; and the invention consists in improvements made in the various parts, all as fully hereinafter described and claimed.

In the drawings, Figure 1 is a general perspective of the whole harness, except the traces and bridle; Fig. 2, a front view of a neck-collar, &c.; Fig. 3, a side view of part of trace detached, showing its catch and the thill-holder thereon in dotted lines; Fig. 4, a detail of same, plan view; Fig. 5, a part of saddle, showing rein-ring, &c.; Fig. 6, a side view of rein-ring; Fig. 7, a plan of combination buckle and strap attachments thereto; Fig. 8, a side view of thill with backing attachments thereon; Figs. 9, 10, 11, details of breast-collar and hame snap-hook, 9 being top plan, 10 a cross-section through the middle, and 11 the other part or catch that unites with 9 and 10.

A represents the saddle having attached thereto strap *a*, which usually supports the trace, but not in this instance. It is fastened into loop 1 in a combination-buckle, B, (to be hereinafter described,) and is then continued from a lower loop, 2, (see Fig. 7,) making the usual strap, *a'*, on the lower end of saddle, and which joins the single and only belly-band *c*, as shown in Figs. 1 and 5.

To the front loops, 3, of the buckle B is attached the breast-collar D of the harness, and which is opened in front and closed by a snap-catch, *d d'*, of peculiar construction, (see Figs. 1, 9, 10, 11,) and which saves putting the har-

ness over the horse's head. One part, *d'*, of this snap has a catch-hook, *u*, fastened to one end of the breast-collar, (see Fig. 11,) and the other end of collar has the part *d*, having catch *y*, that receives hook *u*, (see Figs. 9 and 10,) operated by the spring *v*. By pressing the end *w* the catch *y* is thrown out of hook *u* and the two ends disconnected, the catch *y* springing back into place, ready for hook *u* the next time. This breast-collar D is held up by a strap, *e*, the top of which fastens to the check-hook. (See Fig. 1.)

Instead of holdback-straps attached to the breeching and wound around the shafts, I use straps *f*, from breeching-ring *g* to the back loop, 4, of the combination-buckle B, and fastened to both. This makes a continuous circle of the breeching and breast-collar, (see Fig. 1,) and with the saddle A is nominally all in one piece. The breeching is held up by the usual hip-straps, *h*, and in addition straps *i i*, meeting at the back of the saddle A, and fastened to the rings *g g*. As will be seen, this arrangement does away with a crupper, which frets many horses, besides the difficulty of putting it on. These straps *i i* also prevent the saddle, &c., being drawn forward by the check.

The traces *t*, instead of buckling to the breast-collar, as is customary, are made shorter and provided with a catch, *t'*, constructed as shown in Figs. 3 and 4, the button end *t''* thereon setting into a slot, *n*, in the combination-buckle B, (see Fig. 7, which shows the slot *n*,) and is kept from jumping out by a short strap, *k*, fastened to the saddle-strap *a*, and goes through loop *m*, just over slot *n*. (See Figs. 5 and 7.) This holds the catch *t'* down. This catch *t'* also has permanently attached on the under side a metal loop, 5, in which is, or forming part of the same, a loop, *l*, through which shaft *s* (each side the same) goes, (see Fig. 8 and dotted lines, Fig. 3,) which hold the shafts up in connection with the saddle-strap. This loop *l* will be made of metal, and is intended to be a part of the catch to the combination buckle B, and will be leather-covered, to prevent wear. The traces always remain on the whiffletree, instead of being wound or thrown over the horse's back, and are thus kept out of the way while a horse is harnessed or unharnessed.

Instead of the usual holdbacks, &c., on the

harness and shafts, I provide a metal fixture, *p*, (see Fig. 8,) which, by projecting points, (shown in dotted lines on shaft,) sets into the underside of shaft and is kept there by a strap, *g*, buckling round the shaft and through a loop in the fixture *p*, as shown. Several holes are made in the shaft to set the fixture forward or back as may be required. A straight projecting hook on the front end of this fixture holds the shaft by the loop *l*, as shown in Fig. 8, and by this the backing is done, the shaft-loop *l* drawing against the fixture pushing the wagon backward.

The combination-buckle B is cast in one piece having the four loops, as before described, the saddle-strap *a*, attached through loop 1, strap *a'* to loop 2, breast-strap D, loop 3, and strap *f*, loop 4. The center of the buckle is open for strap *k*, and slot *n* is for reception of head *t'* of trace-catch *t'*. This buckle obviates three fastenings to thills, and does away with one belly-band.

When a neck-collar is used instead of the breast-collar D, it is made to open at the bottom, (see Fig. 2,) and the hames may be fastened permanently to the collar or not; but the ends are supplied with my breast-collar fastener *d d'*, so as to lock and unlock at the ends. In this case short traces from the harness to the combination-buckle B will take the place of the breast-collar, and the open rein-rings *r* will be used also on the hames.

An open collar and open hames I do not claim as new.

The rein-ring *r* (see Figs. 1, 5, 6) is open at the side, the two ends turned a little from and overlapping each other. By this construction the reins can be put in and taken out without unbuckling at the bit or ends, and when in cannot come out without a strong sidewise pull. This saves putting the whole length of the reins through the usual rings.

To take the whole harness off, it is only necessary to uncouple the breast-catch *d d'*, unbuckle the one belly-band *c*, take out strap *k*, then catch *t'*, attached to the traces, from slot *n*, and the whole can be lifted off, except, of course, the bridle, the reins being taken out sidewise from hooks *r r*.

By these simple changes in a harness it can be put on and taken off in one-half the time now required, and if a horse falls, instead of having to unbuckle the holdbacks, the two belly-bands, tugs, &c., and unbuckle and pull the reins out, it is only necessary to undo the traces from the whiffletree and draw the wagon backward. This leaves the horse entirely free from the wagon.

I claim—

1. In a harness, the combination of the breast-collar fastener, constructed as described, the buckle B and its connections, the trace-fastener *t' t'*, and shaft-loop *l*, in connection with the holdback fixture *p*, the straps *e h i f*, the open rein-rings *r r*, and the saddle, all arranged and operating in connection, so as to be used substantially as and for the purpose specified.

2. The combination of the buckle B, constructed as described, straps *e* and *i a a' f* D, the harness-saddle, and the trace-fastener *t' t'*, having the shaft-loop, *l*, all substantially as and for the purpose specified.

3. In a harness, in combination with the saddle, the straps *e, h, i*, and *f*, all arranged substantially as and for the purpose specified.

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

REUBEN H. COATSWORTH.

Witnesses:

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