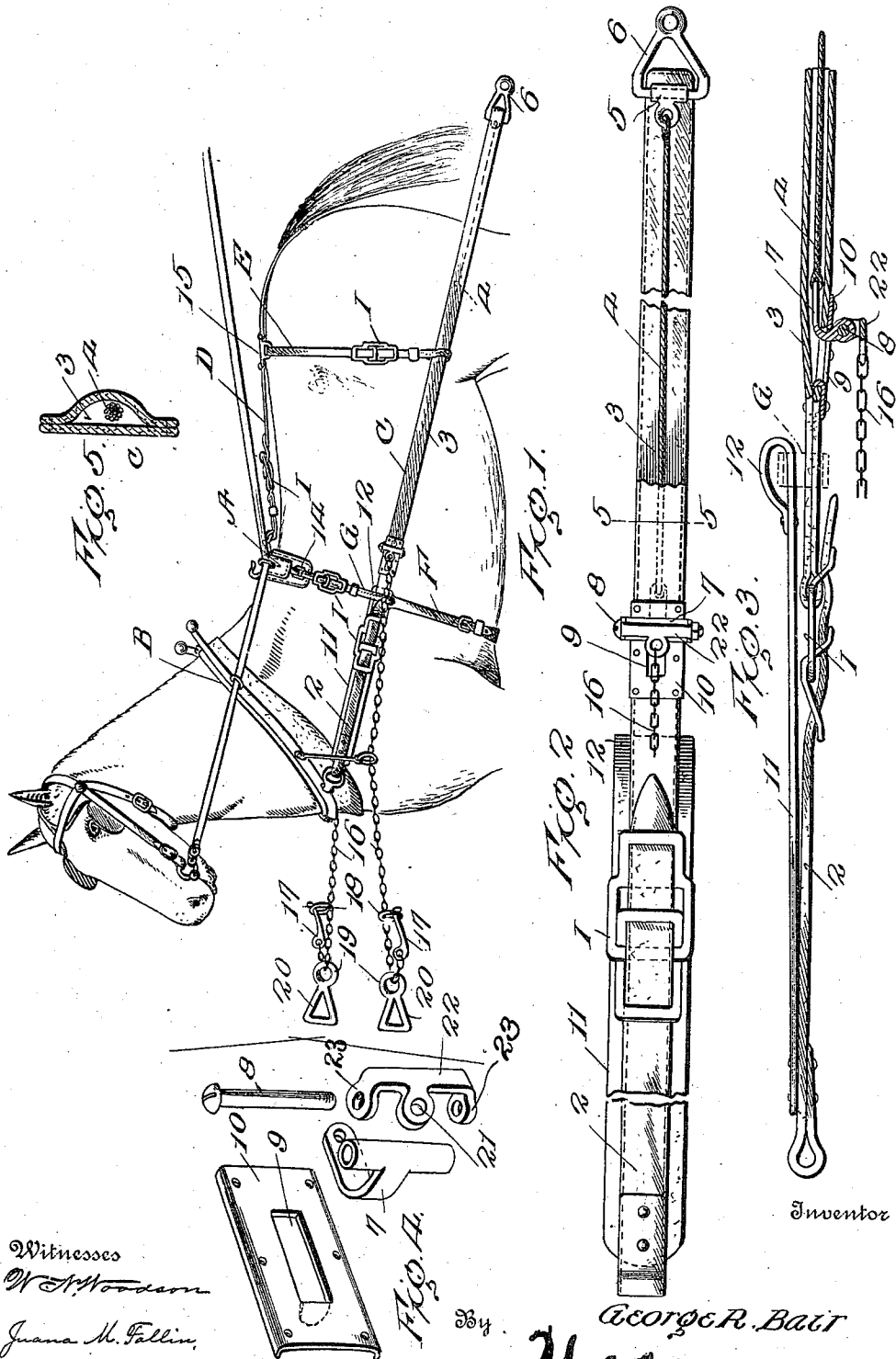


G. R. BAIR.
HARNESS.

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987,847.

Patented Mar. 28, 1911.



Witnesses
W. A. Woodson
Juana M. Fallon

George R. Bair
Attorneys

UNITED STATES PATENT OFFICE.

GEORGE R. BAIR, OF BELVUE, KANSAS, ASSIGNOR OF ONE-THIRD TO RUBIN W. WEEKS
AND ONE-THIRD TO EDWARD HARTWICK, BOTH OF BELVUE, KANSAS.

HARNESS.

987,847.

Specification of Letters Patent.

Patented Mar. 28, 1911.

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To all whom it may concern:

Be it known that I, GEORGE R. BAIR, a citizen of the United States, residing at Belvue, in the county of Pottawatomie and State of Kansas, have invented certain new and useful Improvements in Harness, of which the following is a specification.

My invention relates to harness for draft purposes and particularly to a harness peculiarly adapted for use with a lead team hitch.

The object of the invention is to do away with the necessity of using double-trees under these circumstances, and to reinforce the traces of a harness so that they will withstand a maximum of strain without breaking.

Further objects relative to the details of arrangement and construction as regards various minor portions of the harness will appear in the following description.

I have shown my invention in the accompanying drawings, wherein:—

Figure 1 is a view showing my improved harness as applied to a horse. Fig. 2 is a side elevation partly in section of an improved trace-strap. Fig. 3 is a top view of the trace shown in Fig. 2 partly in section. Fig. 4 is a perspective view of the members forming the connection between the draft chain and the trace-reinforcing wire or cable. Fig. 5 is a section enlarged upon the line 5—5 of Fig. 2.

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

Referring to these figures, A designates a saddle pad of any usual or approved construction and having a belly band F, as usual.

B designates the hames, C the traces, D the back strap, E the hip straps and G the trace tugs or carriers.

Each of the traces C is formed in two parts 2 and 3, the part 2 being attached to the hames in any suitable manner and then extending rearward, and the part 3 being attached to one section of an improved buckle which forms the subject-matter of another application for patent, Serial No. 554,966, filed by me on the 12th day of April, 1910. This improved buckle permits the trace to be lengthened or shortened, as desired.

Extending longitudinally through the section 3 of each trace and sewed within the interior of the trace, is the small wire cable or cord 4 which at its rear end is attached to a clip 5 formed of a folded piece of metal, this clip connecting the wire 4 with the cock-eye 6. At its forward end the wire 4 is attached to a clip 7 which incloses a bolt or pintle 8. The clip 7 projects out through a slot 9 formed in a face-plate 10 which is riveted or otherwise fastened to the faces of the trace. This method of attaching the reinforcing wire to the trace securely holds the reinforcing wire into engagement therewith and prevents any chance of its being pulled through or torn out. Furthermore, it provides means for the attachment of the forwardly extending draft chains, as will be later described. The forward extremity of the section 3 of the trace strap is folded over upon itself and around the cross bar of a buckle I, as will be later described, the forward section 2 of the trace strap being also engaged with the buckle I so that the trace, so far as strength goes, is practically made in one piece, but may be adjusted for length. Attached to the inside face of each of the traces is the shield strap 11 which at its rear end is folded inward upon itself, as at 12, to engage with the loop formed at the lower end of the trace tugs.

The trace tugs G are formed of a strap which is attached at one end to a ring 14 on the saddle and which strap is then passed down over the adjacent trace strap on that side up through the loop 12 in the shield 11 and then engaged with a buckle I. This buckle is so formed as to permit the trace tugs to be shortened or lengthened, as desired. The back strap D is attached at its rear end to a member 15 and extends forward and passes through a buckle I, whereby it may be lengthened or shortened. The crupper strap H extends from the member 15 and is of any desired character. The hip straps are attached at their upper ends to opposed eyes formed in the member 15 and then extend downward to pass through a buckle I, are looped beneath the trace straps, then extend upward, and once more engage with the buckle I, the buckle permitting the hip straps to be lengthened or shortened, as desired.

Connected to the traces rearward of the point of connection of the traces with the

trace tugs are the draft chains 16. These at their forward ends are provided with hooked members 17 which are adapted to be engaged by links 18 engaging over the chain 16. A loop is thus formed which passes through an eye 19 on the cock-eye 20. The rear end link of each chain passes through an eye 21 formed upon a bar 22 whose extremities are angularly bent, as at 23, and formed with eyes through which passes the pintle 8. It will thus be seen that draft applied to the chains 16 will be carried back and applied to the rear portion of the traces and particularly to the reinforcing cable or wire cord 3. It is to be understood, of course, that in place of the wire cord, a chain may be used, though the wire cord is better for this purpose.

It will be obvious that a trace which would be amply strong enough for a load capable of being drawn by one horse or by a team, would not necessarily be strong enough to stand the strain of two or four horses, respectively, applied to it to draw a heavier load. Hence, the advantage of the construction described whereby the draft of an extra team is applied not to the forward portion of the trace which is unreinforced, but to the rear reinforced portion of the trace which has to stand the entire strain of the draft animal.

My improved buckle which is indicated in the drawings, by the letter I, and which as before stated, forms the subject-matter of another pending application, comprises two parts or sections, which when placed together, form a plurality of links provided with cross-bars. The straps pass beneath or engage with the cross-bars on both sections of the buckle, so that when in position, any strain upon the straps acts to straighten the links and thus the strap which is interwoven through the links will be clamped or gripped so that its frictional engagement with the links will prevent its being withdrawn under ordinary circumstances. These buckles do not require that the straps shall be perforated and so provide for the adjustment of the straps as to be lengthened, and hence I prefer to use it with my improved harness, although I do not wish to limit myself to this use.

Having thus described the invention what is claimed as new is:—

1. A trace for harness comprising a tubular body portion, an integral reinforcing wire extending longitudinally through the body of the trace, a slotted face-plate on the body of the trace, a clip engaging one end of the reinforcing wire and extending out

through the slot in the face plate, a pintle extending transversely through the clip and bearing upon the face-plate, and a cock-eye attached to the other end of the wire and to the rear end of the trace.

2. In a harness and lead team hitch, traces, each made in two sections, a flexible reinforcing member extending longitudinally through the rear section of each trace, and a flexible lead team connection attached to the forward end of each reinforce and thereby connected to the rear section of each trace.

3. In a harness and lead team hitch, traces made in two sections, a reinforce extending longitudinally through the rear section of each trace, a cock-eye connected to the rear end of each trace, and lead team connections connected to the forward end of each reinforce.

4. In a harness and lead team hitch, a trace made in two sections engaged with each other, a longitudinally extending wire passing through the rear section of each trace, cock-eyes to which the rear ends of the wire are connected, clips on the face of each trace to which the forward ends of the wires are connected, a member pivotally mounted on each of said clips and flexible lead team connections attached to each of said members.

5. In a harness and lead team hitch, traces made in two sections engaged with each other, a longitudinally extending wire extending through each rear section of the trace, cock-eyes to which the rear ends of the wire are connected, clips on the face of each trace to which the forward ends of the wires are connected, and chains connected to said clips.

6. In a harness and lead team hitch, traces made in two sections detachably engaging each other, a reinforcing wire extending through the rear section of each trace, cock-eyes to which the rear ends of the reinforcing of the traces are connected, a slotted face-plate on the forward end of each rear section of the trace, and a clip disposed upon the face of each plate with which the forward end of the corresponding reinforcing wire is connected, a pintle passing through said clip, a yoke engaged by said pintle and provided with an eye and lead team chains, each connected to one of said yokes.

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

GEORGE R. BAIR. [L. s.]

Witnesses:

JOHN H. FISH, Jr.,
JOHN H. FISH, Sr.