

(No Model.)

H. C. DOERR.  
TRACE CARRIER.

No. 473,830.

Patented Apr. 26, 1892.

Fig. 1.

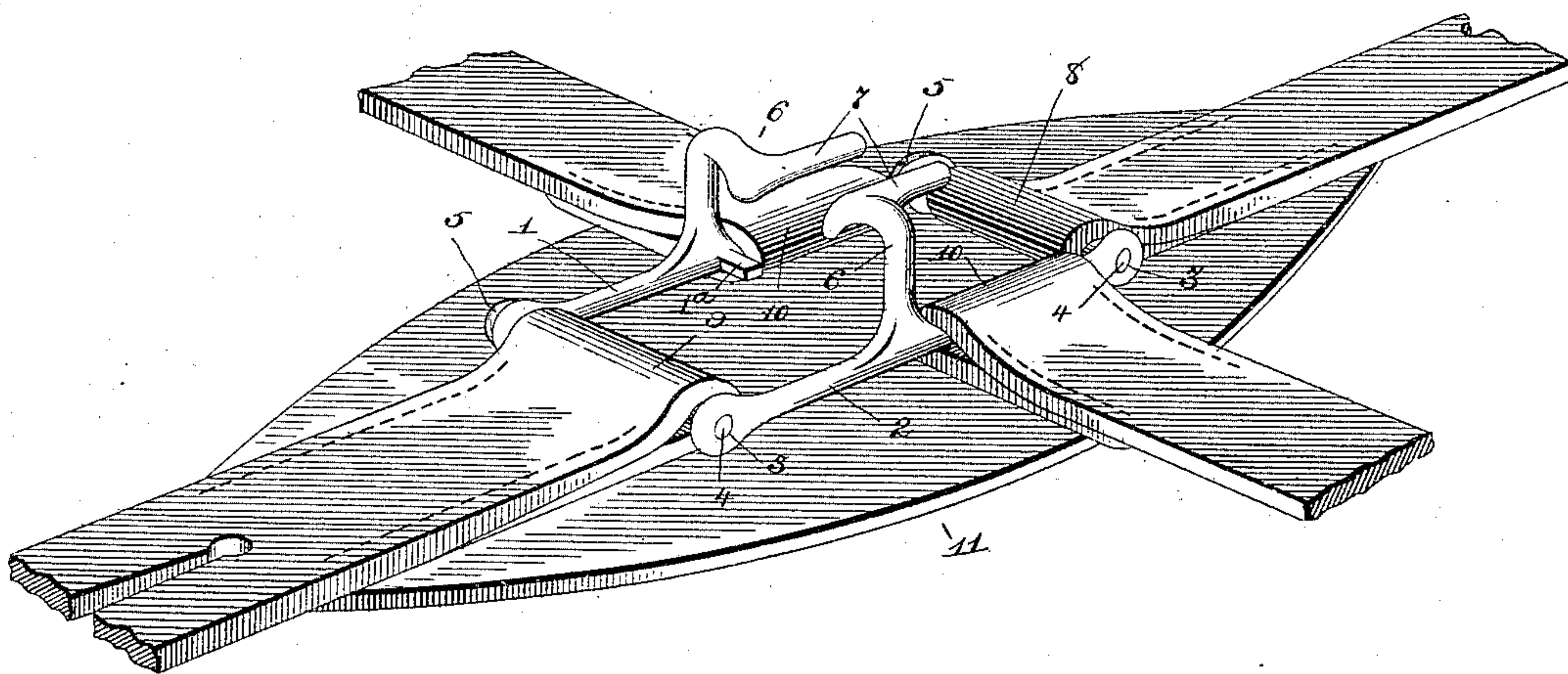
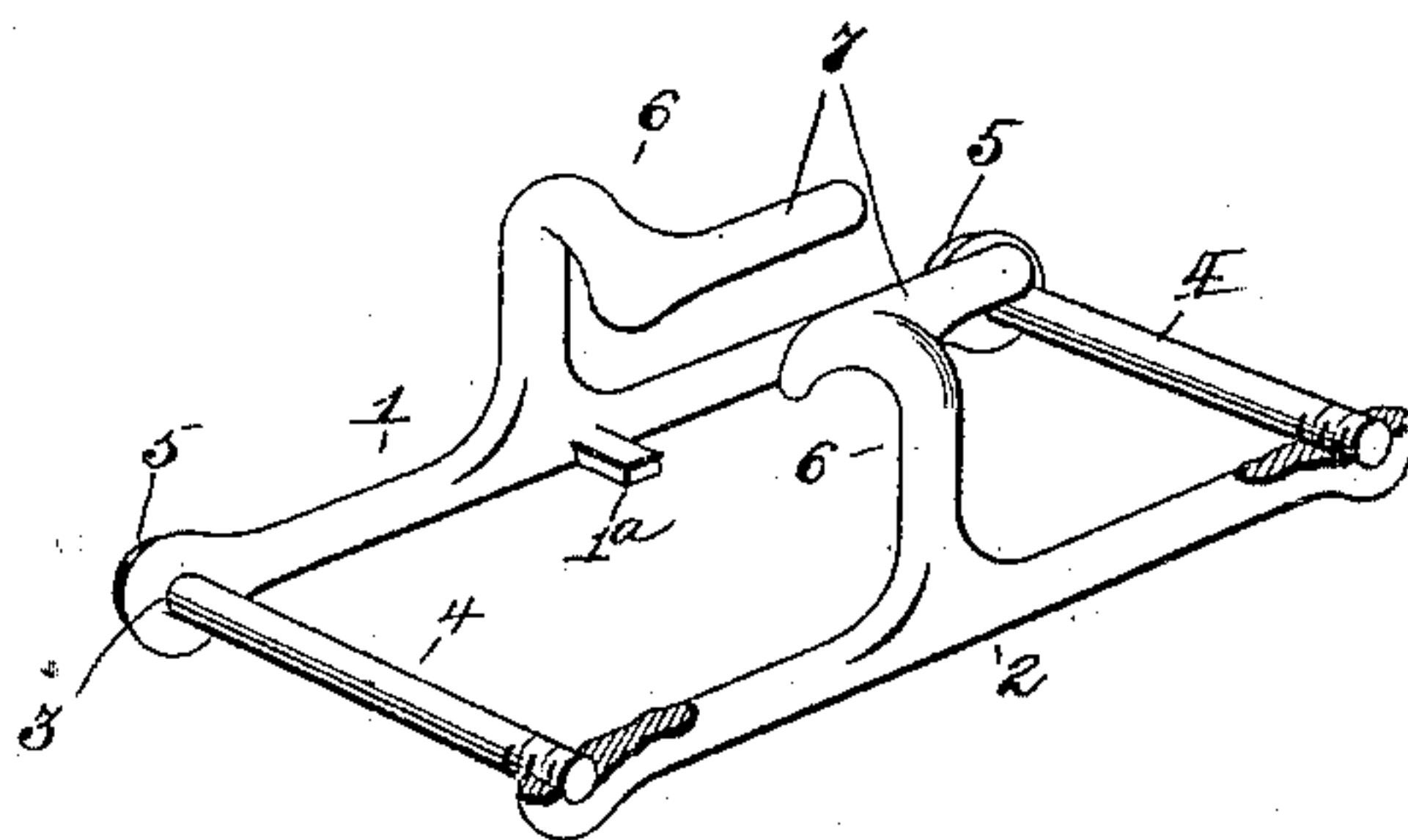


Fig. 2.



Witnesses:

*E. S. Duvalley*  
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By *his* Attorneys,

Inventor

*H. C. Doerr.*

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# UNITED STATES PATENT OFFICE.

HENRY C. DOERR, OF MACKSVILLE, KANSAS.

## TRACE-CARRIER.

SPECIFICATION forming part of Letters Patent No. 473,830, dated April 26, 1892.

Application filed November 30, 1891. Serial No. 413,529. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY C. DOERR, a citizen of the United States, residing at Macksville, in the county of Stafford and State of Kansas, have invented a new and useful Trace-Carrier, of which the following is a specification.

This invention relates to improvements in that class of trace-carriers employed as a coupling medium between the back, opposite hip, and crupper straps.

The objects of my invention are to provide a cheap and simple carrier of this class, the cockeye-engaging hooks of which are so disposed as to safely support the traces and prevent them from becoming accidentally detached and yet so formed as to facilitate a withdrawal of the cockeyes therefrom when proper, and finally to provide said carrier with means whereby it may be readily applied to harnesses without the necessity of ripping the stitches thereof.

Heretofore in devices of this class it has been customary to construct the frame serving as the coupling medium integral, the loops of the four straps above mentioned being ripped and resewed about the side and end bars of such frame. The objections arising from such a necessity are too obvious to require comment, and by my invention, as will be hereinafter apparent, I obviate the same and provide a trace-carrier the frame of which may be coupled with the aforesaid straps without the necessity of any ripping whatever or subsequent sewing or the necessity of calling into service a harness-maker for such purpose.

Referring to the drawings, Figure 1 is a perspective view of a trace-carrier constructed in accordance with my invention, the same being connected with the straps. Fig. 2 is a detail in perspective of the carrier, portions being broken away.

Like numerals of reference indicate like parts in both figures of the drawings.

In constructing the coupling I employ opposite side bars 1 and 2, each of which is provided with perforations 3 near its extremities, those of the side bar 2 being threaded, as shown. The ends of the side bars are connected by transverse bolts 4, which bolts constitute the end bars of the coupling, which is

therefore rectangular, in that it comprises the opposite parallel side bars 1 and 2 and the end bars 4. The bolts terminate each at one end in a head 5, while the opposite end is threaded, so as to engage the threads of the perforations of the side bar 2.

From a point slightly in rear of the centers of the side bars 1 and 2 rise hooks 6, which are downwardly curved near their upper ends. These hooks are upwardly, inwardly, and slightly downwardly curved, as shown, and at their inner extremities are provided with forwardly-disposed parallel branches 7. Lugs 1<sup>a</sup> project from the side bars opposite the hooks. This completes the construction of the trace-carrier, and it will be seen that the bolts forming the end bars being removable the four parts composing the frame or coupling portion of the carrier may be readily separated.

8 designates the loop at the rear end of the back-strap, 9 the loop at the front end of the crupper-strap, and 10 the loop at the inner ends of the opposite hip-straps, which loops are all formed in the usual manner—that is, by opposite rows of stitches—and the straps 8 and 9 stitched through and to shield 11, usually located at the intersection of the four straps mentioned. Heretofore, in order to apply a trace-carrier of this class to these four straps by reason of the fact that the frame of the carrier was integrally formed, it became necessary to rip the stitches embodied in all of the loops of the straps and afterward to reinsert the same. Such an operation was fraught with delay in the use of the harness, sometimes necessitating long trips to the harness-maker, and in all cases was more or less expensive. By my invention, however, it will be seen that by removing the two bolts constituting the end bars said bolts may be readily passed through the loops 8 and 9 of the back and crupper straps, respectively, while the opposite side bars 1 and 2 may be as readily passed at their front ends through the hip-strap. When such has been accomplished, it simply remains to rotate the bolts by an ordinary screw-driver, so that their threaded ends are run into the threaded perforations at the ends of the side bar 2.

The advantages of my invention, therefore,



will be readily apparent to all conversant with the handling, mending, and making of harness and need not be particularized further.

5 The manner of using the trace-carrier is the same as those in general use—namely, after the traces have been disconnected from the singletree and the horse is about to walk out from the thills the cockeyes at the ends  
10 of the traces are simply introduced over the branches 7 of the hooks 6, and following the disposition of the hooks arrive at the bases of the same, the peculiar disposition of the hooks rendering accidental disengagement of  
15 the cockeyes impossible, while readily permitting of a desired disengagement in the act of harnessing.

Having described my invention, what I claim is—

20 The herein-described improved trace-carrier, the same consisting of the opposite lon-

gitudinal side bars, each terminating near its ends in perforations, those perforations of one side bar being threaded, hooks rising from the side bars in rear of their centers and be- 25 ing upwardly, inwardly, and downwardly curved and terminating at their ends in forwardly-disposed parallel branches 7, and the headed bolts constituting connecting end bars, said bolts being passed through the 30 plain perforations of one of the side bars and having their ends threaded in the perforations of the companion side bar, substantially as specified.

In testimony that I claim the foregoing as 35 my own I have hereto affixed my signature in the presence of two witnesses.

HENRY C. DOERR.

Witnesses:

D. S. ENGLISH,  
JAMES B. ENGLISH.