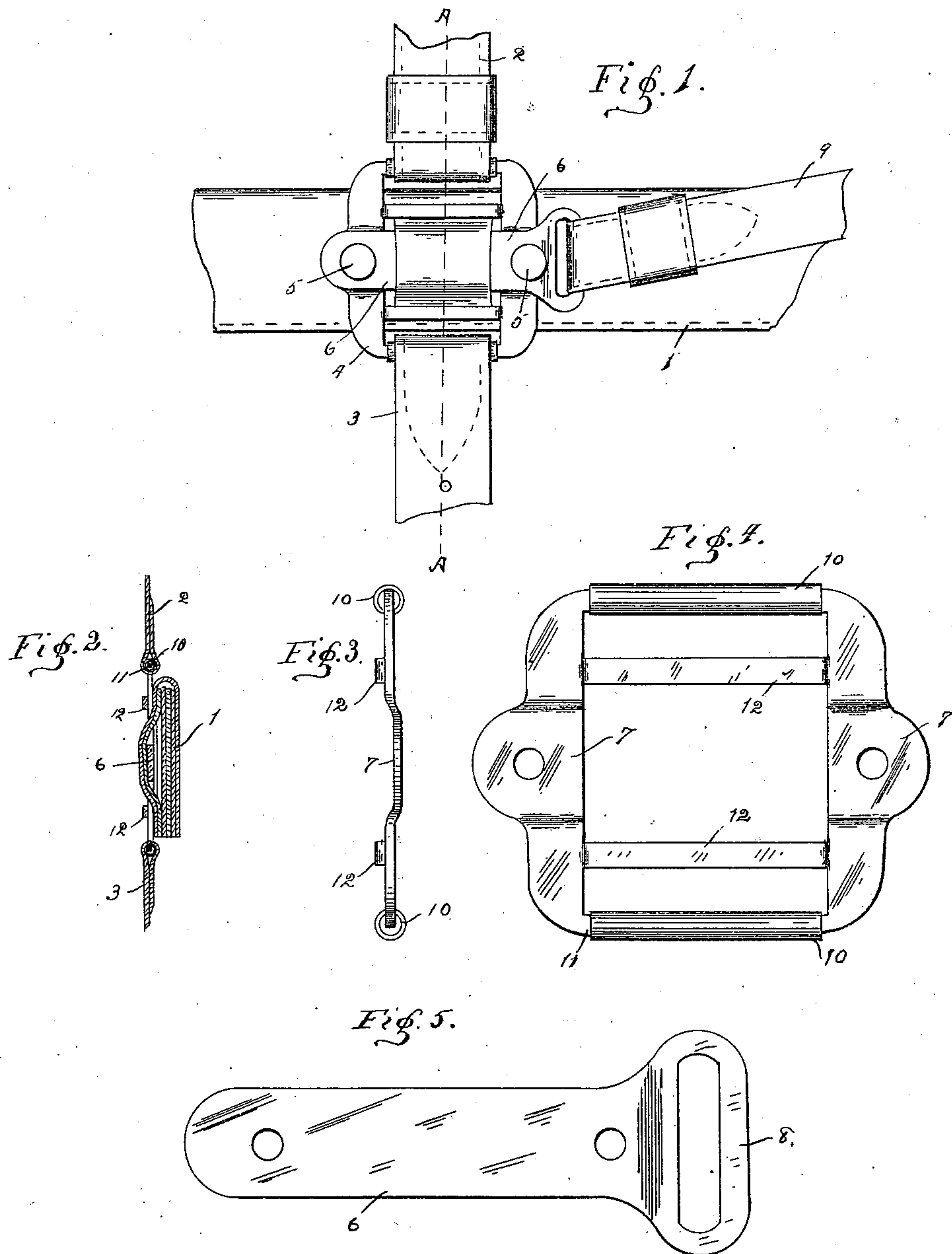


(No Model.)

W. F. WALLS.  
HARNESS.

No. 546,567.

Patented Sept. 17, 1895.



Witnesses

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# UNITED STATES PATENT OFFICE.

WASHINGTON F. WALLS, OF GREENCASTLE, INDIANA.

## HARNESS.

SPECIFICATION forming part of Letters Patent No. 546,567, dated September 17, 1895.

Application filed April 13, 1895. Serial No. 545,836. (No model.)

*To all whom it may concern:*

Be it known that I, WASHINGTON F. WALLS, of Greencastle, county of Putnam, and State of Indiana, have invented a certain new and useful Improvement in Harness; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like figures refer to like parts.

My invention relates to that portion of harness adapted especially for heavy work, where the back and belly band join the trace.

The object of the invention is to provide a convenient and economical means of securing these parts together strongly and so the side of the horse will not be injured by the rubbing harness. The nature of the invention will more fully appear from the following drawings and descriptions.

In Figure 1 will be seen a side elevation of the portion of the harness in which my invention is found, the parts of the harness being broken away. Fig. 2 is a section on the line A A of Fig. 1. Fig. 3 is an edge view of the metal plate I use. Fig. 4 is an elevation of the same, and Fig. 5 the D-bar.

In Fig. 1 I show an ordinary leather-trace 1 that extends unbroken from the harness to the whiffletree. It is made in the customary way by sewing layers of leather to each other.

2 is the back-band and 3 the belly-band. I secure the metal plate 4 to the rivets 5 that also pass through the D-bar 6. The rivets at their inner ends are embedded in the leather, so they will not abrade the skin of the horse. The metal plate 4 has a centrally-depressed portion at 7 in which the D-bar 6 fits. I preferably cut two layers of leather of the trace and extend the D-bar 6 beneath them, as seen in Figs. 1 and 2. This brings the plate closer

to the horse and presents a better appearance, but is not a necessary arrangement, as the plate may be secured to the outside of the trace. By enlarging the rear end of the D-bar 6, I provide a D 8, to which the hold-back strap 9 is secured. The back-band and belly-band are looped over the small cylinders 10 that loosely envelope the upper and lower side bars 11 of the plate 4. The plate is preferably wider than the trace. The cross-bars 12 are provided where the D-bar 6 extends under a layer of the trace. From this description it will appear that the trace is unbroken. The attachment of the back and belly band and hold-back strap is wholly on the outside of the trace, and the inner side of the trace presents a smooth surface to the horse's side. When the trace is to be removed from the back and belly bands, the rivets are cut and the D-bar withdrawn.

What I claim as my invention, and desire to secure by Letters Patent, is—

In harness, the plate 4 with the depressions 7 and side bars 11, a continuous trace with two vertical slots in one or more of the outer layers of said trace, the D-bar 6 extending through such slots in the trace and fitting in the depressions in the plate 4, rivets securing the D-bar, plate 4 and trace together, the back-band secured to one cross bar of the plate 4, the belly-band secured to the other, and the hold-back strap secured to the D-bar, substantially as set forth.

In witness whereof I have hereunto set my hand this 4th day of April, 1895.

WASHINGTON F. WALLS.

Witnesses:

HARRY D. GRAHAM,  
JAMES J. SMILEY.