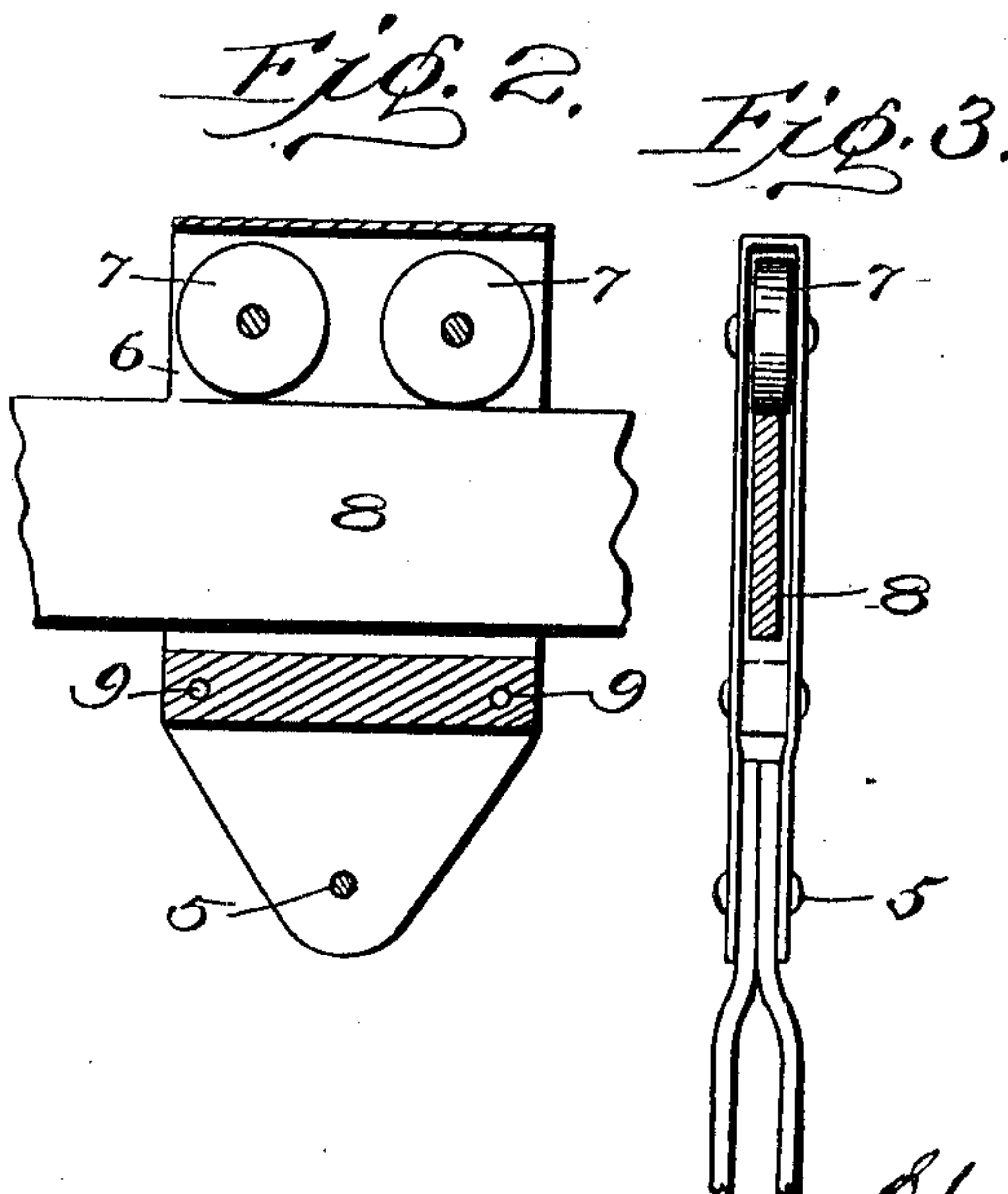
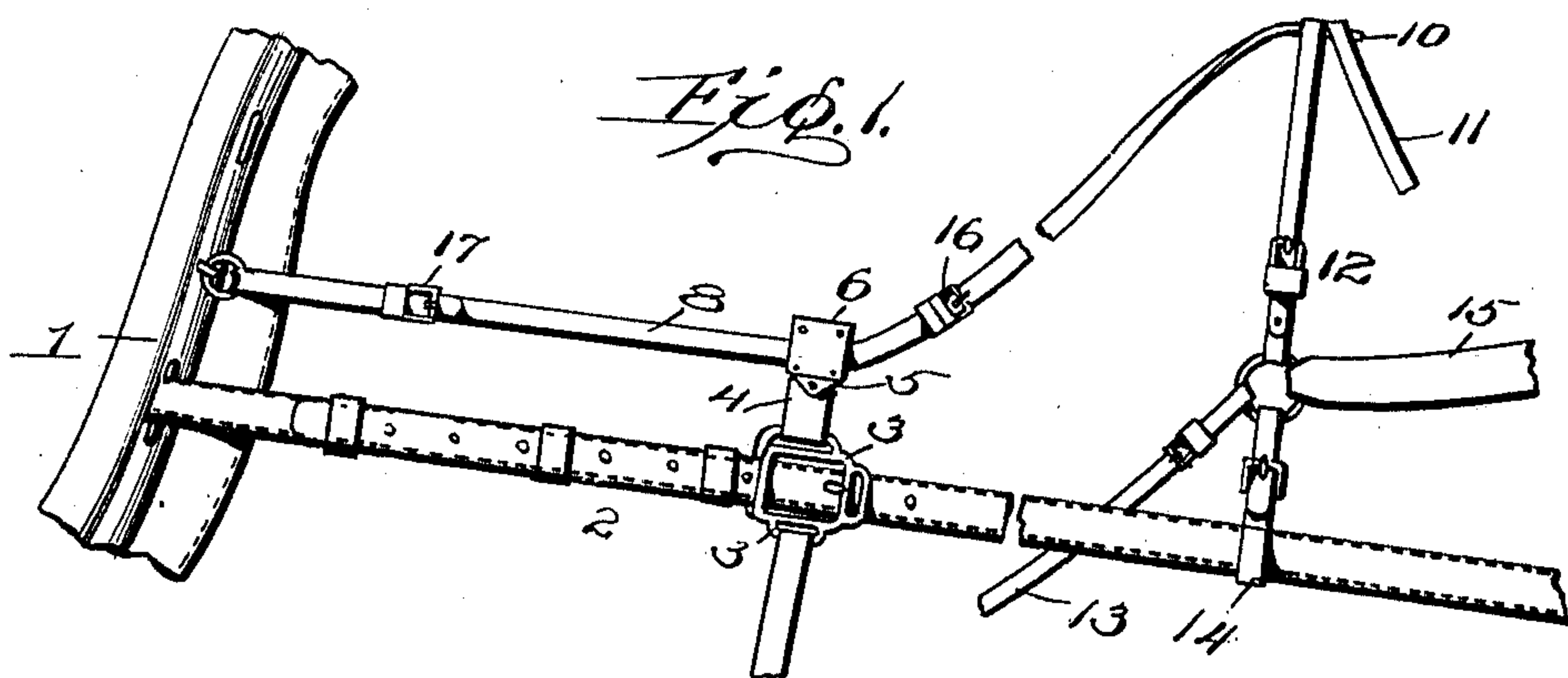


E. COWAN.  
ATTACHMENT FOR HARNESS.  
APPLICATION FILED AUG. 10, 1908.

970,310.

Patented Sept. 13, 1910.



Witnesses

*J. M. Fowler*  
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# UNITED STATES PATENT OFFICE.

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## ATTACHMENT FOR HARNESS.

970,310.

Specification of Letters Patent. Patented Sept. 13, 1910.

Application filed August 10, 1908. Serial No. 447,867.

*To all whom it may concern:*

Be it known that I, EDWARD COWAN, a subject of the King of Great Britain, residing at Bethune, in the Province of Saskatchewan, Canada, have invented certain new and useful Improvements in Attachments for Harness; and I do hereby 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.

This invention relates to improvements in harness, and particularly to breeching devices therefor arranged to require a minimum number of straps and yet afford a maximum utility and convenience.

One of the objects of the invention is the provision of a breeching formed with a housing carrying anti-friction members which guide the strap, the housing in turn being pivotally connected with the tug for permitting a free swinging movement of the housing for accommodating various movements of the horse.

Another object in view is the provision of an improved pivotally mounted anti-friction bearing mechanism and a trace supporting strap that extends from the hip ring to the hames, the trace supporting strap passing through the anti-friction means, and the anti-friction means being in turn connected with the trace.

With these and other objects in view the invention comprises certain novel constructions, combinations and arrangement of parts as will be hereinafter more fully described and claimed.

In the accompanying drawings: Figure 1 is a fragmentary view of a set of harness with my improved attachment connected therewith. Fig. 2 is a longitudinal vertical section through my attachment. Fig. 3 is an edge view of the attachment shown in Fig. 2.

In the construction of harness, and particularly harness having breeching straps and various supporting straps therefor, a comparatively large number of straps are necessary and various pivotal movements of the straps are required in order to accommodate the breeching and supporting

straps therefor to the various movements of the horse.

According to the present invention a mechanism is presented in which one of the principal straps connected with the breeching strap is arranged to pass through an attachment provided with roller bearings so as to permit an easy movement thereof, and thus permit the strap to yield to the various motions of the horse.

Referring to the drawing by numerals, 1 indicates a hame of any desired kind to which is secured a trace 2 of any desired kind that may be provided with a buckle 3 for varying the length of the trace. Passing through one of the loops of buckle 3 is a strap 4 that is pivotally mounted at 5 to a housing or inclosure 6. The housing 6 is preferably made from a piece of sheet metal and simply bent upon itself in order to inclose a pair of anti-friction means or rollers 7—7. In order to prevent the lower end of the housing from closing up and pinching against the rollers 7—7 and the strap 8 a spacing lug 9 is riveted or otherwise secured between the sides of housing 6. The strap 4 may be made from leather or sheet metal as may be desired, but in either instance is pivotally mounted at 5 so that housing 6 may take any desired angle for accommodating strap 8 which extends from hame 1 to hip ring 10.

Connected with hip ring 10 is a plurality of straps 11, 12, 13 and 14 for holding breeching 15 properly against the horse. The straps are of the usual type and arranged to act in the usual manner. Connected with ring 10 is strap 8 which may be adjusted by buckles 16 and 17 to suit any particular sized horse, and is arranged to pass through housing 6 and freely reciprocate therein. By this construction of roller bearings for strap 8 a number of parts may be dispensed with and consequently the harness may be made more quickly, and at the same time will give better satisfaction by reason of the self-adjustment of the strap for various sized horses. Also it will be observed that by reason of the anti-friction members the strap will not fray or break at the wearing point, and when taken with the pivotal mounting of strap 4 will more



easily adjust itself to conform to all movements of the horse.

It will be evident that the housing 6 may be made in any desired shape and to present an ornament if so desired.

A leather shield may be placed back of the housing so as to protect the horse from the same, and also from strap 4 if so desired.

10 What I claim is:

1. The combination with a draft harness, having a pair of hames and a hip strap, of supporting straps for the traces of the harness extending from the hip strap to the hames, a pair of anti-friction rollers engaging each of the straps along one edge, housings encircling each of said straps and said anti-friction means for holding the anti-friction means in position and for guiding said straps against said anti-friction means, a pivotally mounted strap for connecting each of the traces with each of the housings, and means for pivotally mounting each of said housings to said straps, said housings being pivotally mounted so as to move in one

direction and said pivotally mounted straps being pivotally mounted so as to move in a plane at a right angle to the movement of said housings on their pivots.

2. The combination with a draft harness 30 having a pair of hames and a hip strap, of a trace supporting strap connecting said hames and said hip strap, a pivotally mounted housing through which said strap is adapted to pass for guiding the same, a pair 35 of anti-friction rollers pivotally mounted in said housing for acting against said trace supporting strap, and a strap pivotally connected with said housing and also pivotally connected with said trace for connecting 40 said housing and said trace whereby said trace supporting strap is connected with said trace.

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

EDWARD COWAN.

Witnesses:

JAMES STEPHENSON,  
FRANK G. LOUFRIDGE.