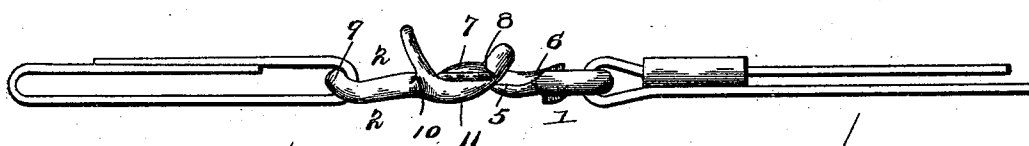
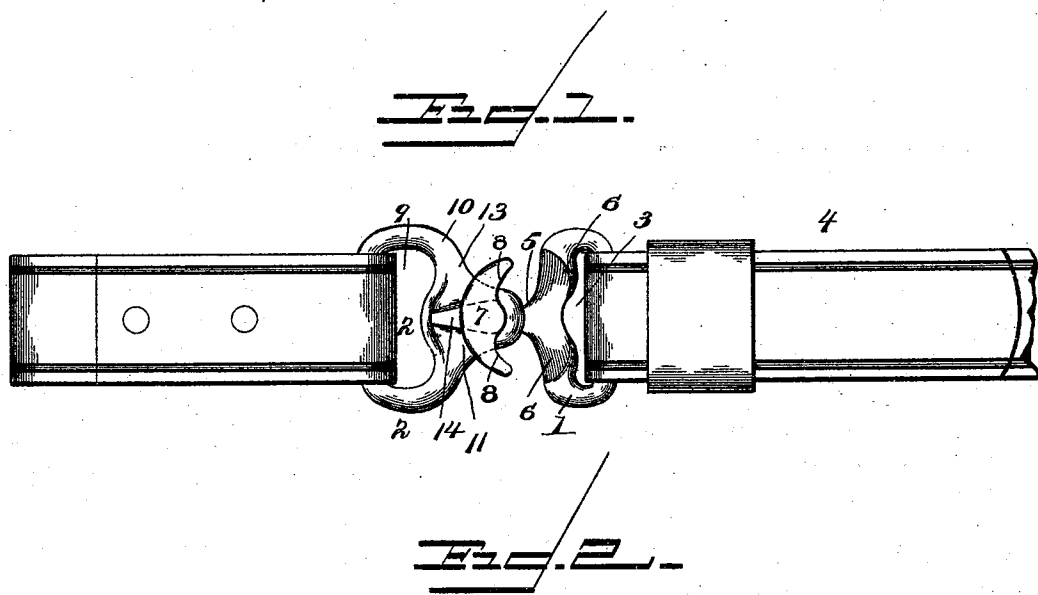


(No Model.)

G. DE B. HAYES.
POLE STRAP COUPLER.

No. 499,225.

Patented June 13, 1893.



Witnesses

C. H. Stewart.

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Inventor

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UNITED STATES PATENT OFFICE.

GEORGE DE BRETON HAYES, OF CHETEK, WISCONSIN.

POLE-STRAP COUPLER.

SPECIFICATION forming part of Letters Patent No. 499,225, dated June 13, 1893.

Application filed March 9, 1893. Serial No. 465,321. (No model.)

To all whom it may concern:

Be it known that I, GEORGE DE BRETON HAYES, a citizen of the United States, residing at Chetek, in the county of Barron and State of Wisconsin, have invented a new and useful Pole-Strap Coupler, of which the following is a specification.

My invention relates to harness couplings; and has special reference to certain improvements upon United States Patent No. 216,700, granted jointly to Frank Reynolds and myself June 17, 1879. In the patent above referred to the invention therein disclosed consisted of two members, one of which was provided with a T-head, so-called, therein, and the other with a slot, the slot being of such size as to permit of the passage of the T-head therethrough edgewise and to prevent its withdrawal after such passage and a partial turning of the T-head. In actual practice it was found that when the device was used for the purpose of coupling pole-straps with the breast-straps of harnesses and the martingale-rings with the breeching-strap owing to the fact that these parts were often slack the couplings would sometimes turn at an angle to each other and hence the edge of the narrow side of the T-head being presented to the slot the members would become disengaged. Of course such is undesirable and detracted to a great extent from the utility of the invention.

The objects of my present invention are to so construct or form the members of the coupling that regardless of any looseness or slack the parts can never become turned at an angle so as to disengage but can only reach such position through a well defined manipulation of the parts by hand whereby the coupling is especially adapted as I have herein illustrated to be used in connection with the pole-strap and breast-strap of harnesses.

With these objects in view the invention consists in certain features of construction and formation hereinafter described and particularly pointed out in the claim.

Referring to the drawings:—Figure 1 is a plan view of a coupling embodying my invention, the same being shown in connection with a pole-strap and breast-strap and in a coupled position. Fig. 2 is an edge view. Figs. 3 and

4 are details of the two members composing the coupling.

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

As in the previous instance, the coupling consists of the two members, which I will designate for the purpose of convenience, as the male-member 1, and the female-member 2. The male-member 1 consists of a transverse eye or loop 3, for the purpose of receiving the strap 4, and from the front transverse side of the same there extends and is formed integral therewith a shank or neck 5. This shank or neck 5 gradually widens toward its base and the front cross-bar of the loop or eye 3 at each side of the shank or neck is provided with curved recesses 6. The shank or neck 5 has its outer extremity slightly upwardly curved until about in a plane with the eye 3, where it has integrally formed therewith a crescent-shaped head 7. The head 7 being crescent-shaped of course has its outer side of semicircular-form, and at its inner edge at each side of the shank 5 curved recesses 8, are formed. This female-member like the male-member, consists of an eye or loop 9, whose rear cross-bar 10, is slightly elevated above the general plane of the eye. The front cross-bar of the member 2 is provided with a saddle-shaped flange 11, which flange extends at its inner end above the plane of the loop and the rear cross-bar 10, and at its front end projects outwardly from the cross-bar of said loop. This cross-bar at the front of the loop is widened toward its center so as to produce curved cheeks or faces 13, at each side of the saddle-shaped flange. The saddle-shaped flange is provided or has formed therein an elongated eye 14, the same being slightly of pear-shape, that is, having one end slightly larger or greater than the other, the greater end being at the outer end of said flange. This completes the construction of the coupler, and in order to effect a coupling of the same they are turned at a right angle to each other, one end of the crescent-shaped head being introduced through the largest part of the eye 14, and the end of the eye takes into the adjacent curved recesses 8 of the head. Now employing the said recess as a bearing the parts are at their outer ends swung

toward each other until the entire crescent-shaped head has passed through the eye 14, when the parts are given a quarter-turn and brought to the position shown in Fig. 1. It
 5 will be seen that the end of the eye 14 will ride upon the curved neck or shank 5 and the curved edge of the crescent-shaped head will ride upon the saddle-shaped flange as the parts are loosely moved one within the other.
 10 The instant, however, that any strain is applied to the parts they become rigid or practically so, the opposite sides of the eye 14 resting in the recesses 8 of the crescent-shaped head and the end of the eye 14 upon the
 15 shank or neck, whereas the head will rest against the cheeks 13 of the female-member.
 It will be seen that it will be impossible for the members to accidentally assume the position necessary for an uncoupling of the
 20 parts, in that they will simply ride loosely and be guided in such manner that unless manipulated by hand they can never arrive at a position relative to each other that will permit of their separation. In fact, in order
 25 to uncouple, while the same is readily done by hand, it is necessary that the parts should be first slid together, that is the eye 14 down upon the base of the neck or shank 5, then the parts given a quarter-turn and the eye 14
 30 slipped up on the shank or neck until its end rests in one of the recesses 8, and then said recess serving as a bearing in the same manner as when the parts are coupled, the said members may be swung apart so as to with-
 35 draw first one end of the crescent-shaped head and then the other.

From the foregoing description in connec-

tion with the accompanying drawings, it will be seen that I have greatly improved upon the device shown, described and claimed in 40 the patent heretofore referred to, and have adapted the coupler to certain uses in harnesses to which it was heretofore practically unfit, whereby its utility is greatly increased.

Having described my invention, what I 45 claim is—

The herein described coupler, the same consisting of the male and female-members 1 and 2, respectively, the first member consisting of a transverse loop adapted to receive a strap 50 and having formed integral with its front cross-bar a curved-shank extending up into a substantial plane with the loop or eye, and having a crescent-shaped head, said head and front cross-bar being provided at each side of 55 the shank with the curved bearing-recesses 8 and 6, respectively, and the female-member consisting of the transverse loop adapted to receive a strap and having integrally formed with its front cross-bar a saddle-shaped flange, 60 said front cross-bar being wider toward the flange and forming curved cheeks or faces at the sides thereof, and the flange provided with an elongated opening or eye whose greatest width is its outer end, substantially as 65 specified.

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

GEORGE DE BRETON HAYES.

Witnesses:

J. HORNBY BUTCHER,
 C. A. BRIDESON.