

J. H. SKIDMORE.  
 STRAP JOINT.  
 APPLICATION FILED MAY 7, 1909.

948,350.

Patented Feb. 8, 1910.

Fig 1

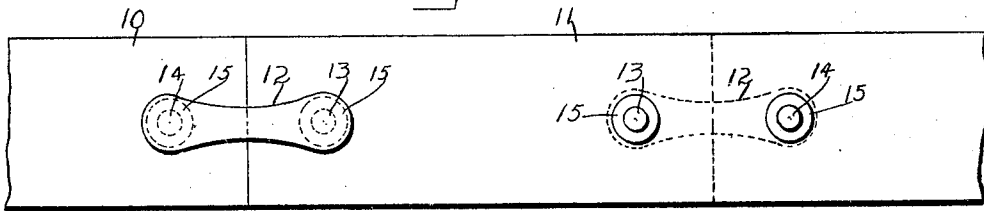


Fig. 2.

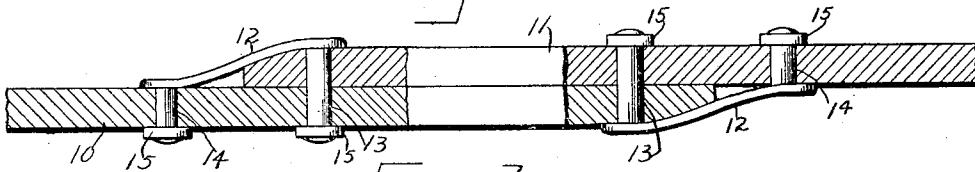


Fig. 3.

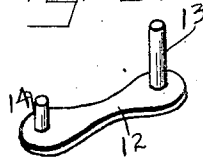


Fig. 4.

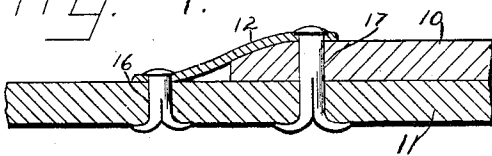


Fig. 6.

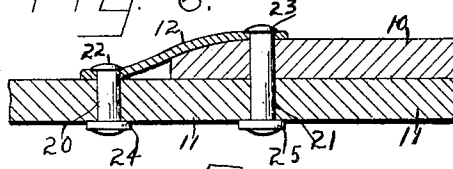


Fig. 5.

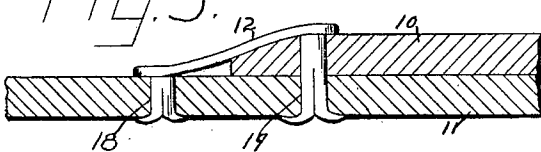
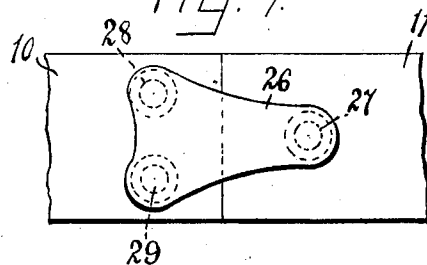


Fig. 7.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## STRAP-JOINT.

948,350.

Specification of Letters Patent.

Patented Feb. 8, 1910.

Application filed May 7, 1909. Serial No. 494,624.

*To all whom it may concern:*

Be it known that I, JOHN H. SKIDMORE, a citizen of the United States, residing at Hiawatha, in the county of Brown, State of Kansas, have invented certain new and useful Improvements in Strap-Joints; 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 improved joints or coupling for straps, and has for one of its objects to improve the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a simply constructed device whereby two straps are firmly and rigidly connected, and the strength at the joint rendered equal to any other portion of the strap.

Another object of the invention is to provide a simply constructed device wherein there are no lateral projections to engage with other portions of the harness.

With these and other objects in view, the invention consists in certain novel features of construction as hereafter shown and described and then specifically pointed out in the claims, and in the drawings illustrative of the preferred embodiment of the invention, Figure 1 is a plan view of the improved joint. Fig. 2 is a side or edge view of the same, partly in section. Fig. 3 is a perspective view of one of the attaching devices disconnected. Figs. 4, 5 and 6 are views similar to Fig. 2 illustrating modifications in the construction. Fig. 7 is a view similar to Fig. 1, illustrating a modification in the construction.

The improved device is designed more particularly to connect the terminals of two straps, for instance the driving reins of a harness, and for the purpose of illustration two conventional straps are represented respectively at 10—11 with their ends overlapping for a distance, as shown.

The improvement comprises a bar 12 bearing over the straps at their joints, that is to say with a portion of the bar bearing upon one of the straps at its end and extending over the body of the other straps adjacent to the end, so that the terminal of one of the straps is located about midway of the bar. By this means the bar extends over the reduced end of the strap and forms a

bridge or guide, to prevent abnormal projections at the joints which would be liable to come in contact with other portions of the harness or with other objects.

The bars 12 are united to the strap by rivets, or similar suitable fastening devices, and any desired form of rivets may be employed for this purpose, and it is not desired therefore to limit the invention to any specific form of the rivets.

In Figs. 1, 2 and 3 the bar 12 and the rivets are shown integral with the rivets 13—14 in the form of studs of unequal length, as shown in Fig. 3, the longer stud 13 extending through the two thicknesses of the strap at one end of the bar and the shorter stud 14 extending through the single thickness of the strap at the opposite end of the bar. The studs are provided with "burs" or washers 15 against the outer faces of which the studs are upset or riveted, as shown.

In Figs. 4, 5 and 6 rivets of various forms are shown applied to the improved device.

In Fig. 4 the bar is shown connected to the straps by ordinary tubular or bifurcated shanks 17—16 of unequal length, the longer shank 17 designed to pass through the two thicknesses of the strap and the shorter shank to pass through the single thickness of the strap.

In Fig. 5 the bar 12 is shown integral with the split shank rivet elements 18—19, while in Fig. 6 the bar is shown secured in place by ordinary rivets 20—21 having lateral heads 22—23 at one end and washers or burs 24—25 at the other ends. By this means the bar is held over the joint between the straps at the terminals of the straps, and forms a guard to the joint, to prevent any tendency of the strap to be displaced or come in contact with passing objects.

While these various modifications are shown, it will be understood that either one may be employed without departing from the principle of the invention or sacrificing any of its advantages, as the operation of the structure of each of the different forms of rivets and bars are substantially the same and produce the same results.

The bar 12 will be preferably formed of malleable iron, and the rivets or studs integral therewith as shown in Figs. 1, 2 and 3 so that all that will be necessary to form the joint will be to force the studs through the overlapping sections of the

straps with the bar extending over the joint and then applying force to produce the riveting effect.

5 The improved device is simple in construction, can be readily applied to straps of various kinds, and will produce a joint which is equal in strength to the other portions of the strap.

10 In Fig. 7 is shown a modification in the construction, consisting in forming a plate 26 with a rivet stud indicated at 27 at one end and widened at the other end, and provided with two rivet studs indicated at 28—29. The plate 26 is arranged over the  
15 strap members 10—11 in the same manner as shown in the other figures of the drawings, with the rivet stud 27 passing through two of the thicknesses of the strap, and the rivet studs 28—29 passing through the  
20 single thickness of the strap. In this arrangement the bearing surface of the plate is materially increased, and the stronger joint or coupling thereby produced.

What is claimed is:—

25 1. As a new article of manufacture a bar

having a relatively long stud extending from one end and a relatively short stud extending from the other end, said longer stud adapted to extend through the two portions of the strap and the shorter stud  
30 extending through the single portion of the strap in advance of the overlapping portions.

2. A joint comprising two straps overlapping at their ends, bars increased in  
35 width at one end and bearing upon said overlapping straps with the wider ends extending over the single thicknesses of the straps, said wider ends being provided with relatively short studs and said narrower end  
40 being provided with a relatively long single stud, said studs being adapted to be riveted to the straps.

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

JOHN H. SKIDMORE.

Witnesses:

A. J. ERNHOLTZ,

A. D. BROWN.