

H. G. WEATHERILL.
ATTACHMENT FOR CHECKREINS.
APPLICATION FILED SEPT. 10, 1909.

981,505.

Patented Jan. 10, 1911.

Fig. 1.

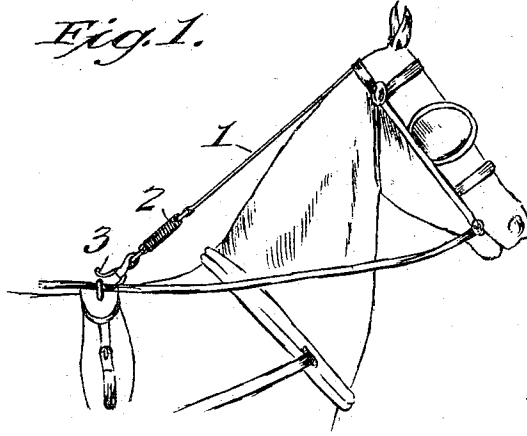


Fig. 2.

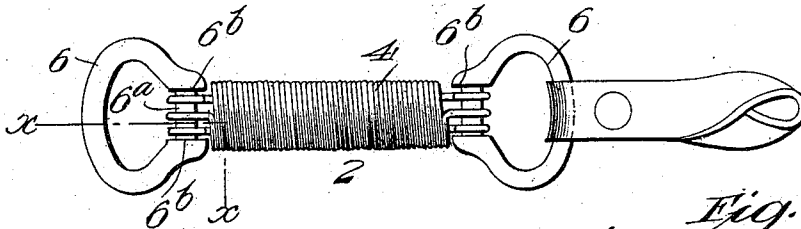


Fig. 3.

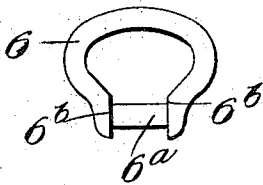


Fig. 4.

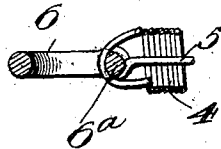


Fig. 5.

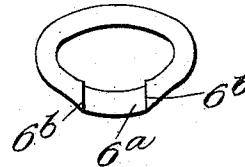


Fig. 6.

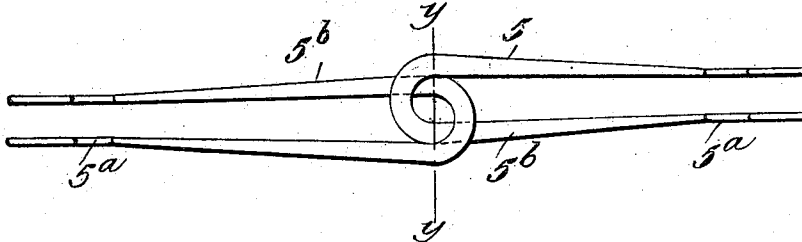


Fig. 7.

Witnesses
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ATTACHMENT FOR CHECKREINS.

981,505.

Specification of Letters Patent. Patented Jan. 10, 1911.

Application filed September 10, 1909. Serial No. 517,119.

To all whom it may concern:

Be it known that I, HENRY G. WEATHERILL, a citizen of the United States, residing at Elgin, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Attachments for Checkreins; 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.

My invention relates to attachment for check reins and is designed as an improvement in the device shown and described in U. S. patent to Edward A. Sweet, No. 582,003, dated May 4, 1897.

The object of the present invention is to prevent the wear upon the straps connected to the rings at the ends of the spring attachment and lessen the liability of said attachment becoming unfastened from the hook on the harness saddle.

Other objects will become apparent from the following description.

The invention consists in the features of construction and combinations of parts hereinafter described and specified in the claims.

In the accompanying drawing illustrating the preferred embodiment of my invention: Figure 1 is a partial view of a horse showing my attachment as applied in use. Fig. 2 is a detailed view of the spring attachment. Fig. 3 is a separate view of my preferred form of ring for use on the ends of said attachment. Fig. 4 is a sectional view on the line $x-x$ of Fig. 2. Fig. 5 is a detailed view of a modified form of ring. Fig. 6 is an enlarged detailed view of the interlocking loops which are arranged within the spring coil of the attachment, and Fig. 7 is a sectional view on the line $y-y$ of Fig. 6 to illustrate how the contacting portions of said loops are reinforced.

Referring more particularly to the drawing, 1 designates the check rein, 2 my attachment and 3 the hook on the harness saddle to which the check rein is normally connected. Said attachment comprises a coiled or helical spring 4 within which are arranged interlocking loops 5. The respective ends of said spring and loops are connected to rings 6. Each of said rings is oval-shaped and its internal longitudinal axis is something over one inch so as to accommodate any of the standard sizes of

straps which vary from one-half to one inch in width. The portion of each ring engaged by one end of the coiled spring and the ends of one of the loops is preferably straight, as at 6^a, in Figs. 3 and 4. Shoulders or enlargements 6^b are formed at each end of this straight portion to retain the ends of said loop and the end of said coiled spring in place and prevent the ring from turning on them. Said straight portion 6^a is preferably made generally triangular in cross section, as illustrated in Fig. 4, with one substantially flat side facing inwardly and its other two substantially flat sides converging to an edge at the outside of the ring. These substantially flat sides are made slightly rounded, as are also the edges at the junction of said sides, to prevent wear upon the attached ends of the wires forming the coiled spring and interlocking loops. I have found that it is easier to bend the ends of these wires around the portions 6^a of the rings when made in the shape described than when made round in cross section. My triangular form also provides a broad bearing on the inside for the attached wires.

Instead of making the part 6^a of the ring straight, said part may be curved to conform to the oval-shape thereof, as illustrated in Fig. 5. In this modified form, the shoulders or enlargements 6^b are smaller than in the preferred form, but should be of sufficient size to prevent the attached parts of the coiled spring and loop from riding over them. The provision of these shoulders holds the ring always in alinement with the spring attachment so that any movement caused by the turning of the horse's head from side to side will be between the check rein or strap and the ring. The advantage of making the ring oval instead of round, or as shown in Patent, No. 582,003, is that the strap is permitted to turn freely thereon without becoming crimped or worn at the edges. It has been found that when the form of ring shown in said patent, having square corners at the ends of the part engaged by the strap, is used, said strap sometimes becomes caught at one side beyond the corner and annoys the horse, sometimes causing the check rein to be jerked off from the hook 3. It has also been found that the rubbing of the loops 5 against one another during the constant movement of the horse's head causes them to wear out much more

quickly than the other parts of the attachment. In order to overcome this defect, I propose to reinforce said loops on the sides which contact with one another, as illustrated in Figs. 6 and 7. In the latter figure, 5^a indicates the normal size of the wire and 5^b the reinforcement. It will be noted from Fig. 6 that the reinforcement gradually decreases in thickness from the bent portion of the loop until it gradually merges into the wire near their ends.

The inner faces of each of the loops is made substantially parallel, as illustrated in Fig. 6. The reinforcement thus does not cause said inner faces to converge toward the bent end of the loop as would be the case if an ordinary loop of constant diameter were reinforced on its inner face. The converging walls of the reinforcements in such a construction would cause greater friction whereas the construction I have provided is free from this objection.

I claim:—

1. In an attachment for check reins, of the character described, the combination, with a helical spring, of rings attached to the opposite sides thereof, each ring being oval-shaped and having shoulders or enlargements at each side of the connection with said spring, the portion between said shoulders being approximately triangular in cross

section and having the apex on the outside of the ring for the purpose specified.

2. In an attachment for check reins of the character described, the combination, with a helical spring, of rings attached to the opposite ends thereof, each ring being oval-shaped and having shoulders or enlargements at each side of the connection with said spring, the portion between said shoulders being straight and approximately triangular in cross section and having the apex on the outside of the ring for the purpose specified.

3. In an attachment for check reins of the character described, the combination, with a helical spring, of interlocking loops arranged within said spring, and rings, one attached to each end of said spring and to the ends of one of said loops, the interlocking portions of said loops being reinforced on the sides thereof which contact with one another, and the inner surfaces of said loops being substantially parallel throughout including said reinforcements.

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

HENRY G. WEATHERILL.

Witnesses:

HENRY C. TOWNSEND,
IRENE LEFKOWITZ.