

(No Model.)

W. W. BAYS.
HARNESS OR OTHER STRAP.

No. 524,236.

Patented Aug. 7, 1894.

Fig. 1.

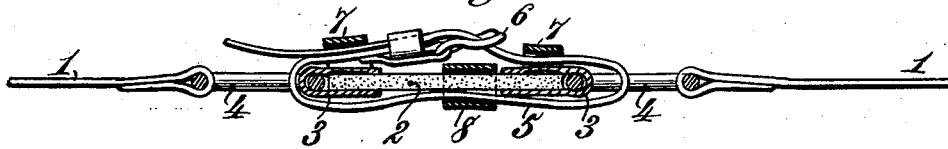


Fig. 2.

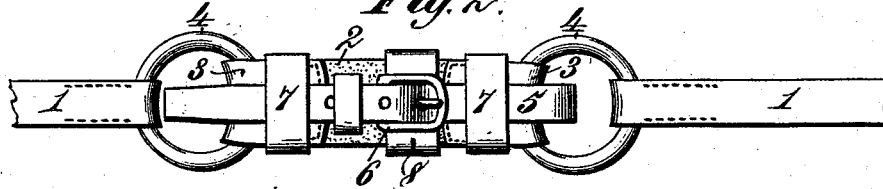


Fig. 3.



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HARNESS OR OTHER STRAP.

SPECIFICATION forming part of Letters Patent No. 524,236, dated August 7, 1894.

Application filed February 21, 1894. Serial No. 501,011. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. BAYS, a citizen of the United States, residing at Rome, in the county of Floyd and State of Georgia, have invented new and useful Improvements in Harness or other Straps, of which the following is a specification.

My invention relates to certain improvements in harness and other straps, the purpose thereof being to provide a self-tightening spring-joint, or elastic connection, between two different parts of the strap, whereby an elastic, permanent tension may be preserved, the strain being shifted, at the maximum tension, to a connecting strap, or link. It is my object to provide a device of this kind which shall be applicable to a trunk, or package strap, to check-reins, bridle-reins, martingales, girths, stirrups, traces, and many other uses.

In order that others may fully understand and be able to make, construct, and use my said invention, I will proceed to describe the same in detail, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal section showing my invention applied to a trunk, or other strap. Fig. 2 is a plan view of the same. Fig. 3 is a longitudinal section showing a slightly modified construction.

In the said drawings the reference-numeral 1 indicates a strap of any desired form, or size, and adapted for any ordinary use. In this strap, at any suitable point, is interposed a spring joint, or elastic connection, consisting of a body of rubber 2, of such length, breadth, and thickness as to afford a sufficient elastic resistance to enable it to sustain a proper degree of strain. To the ends of this body of rubber are securely attached loops 3, of leather or other suitable material, which are lapped upon the ends of the rubber and fastened by stitching or other equivalent means. Within these loops and between the same and the ends of the rubber 2, are placed rings 4, or, if preferred, rectangular frames similar to the frames used upon buckles. These rings, or frames, serve as means of attachment for the two portions of the strap 1, in which the spring joint is in-

terposed. The rubber-joint 2, should be somewhat wider than straps 1 and 5, as seen in Fig. 2.

The numeral 5 indicates a strap-loop, which consists of a comparatively short strap passing through both the rings, or frames 4, and having its ends brought together and united by means of a buckle 6. I prefer to pass this strap through loops, or keepers 7, which may conveniently be stitched, or otherwise fastened between the ends of the rubber and the loops 3, a central loop 8 being also provided to inclose the middle portion of the strap 5, upon the opposite side of the body of rubber. The strap last named is fastened in its buckle 6 at such a point that the body or rubber 2 must yield, or stretch longitudinally, before tension is applied to said strap. The degree of this yield may evidently be varied by letting out, or taking up, the strap 5 by means of its buckle 6. It is evident that this loop, or strap 5, will arrest the stretching, or elongation, of the rubber-joint 2, at the proper point, thus preventing it from stretching too far and, in case it should break the strap 5, will prevent any damage being done to the strap 1, and will also prevent the package from being ruptured and its contents disclosed.

I may dispense with the loops 3 by using a strip of rubber of somewhat less thickness and carrying its ends through the rings, or frames 4, and then lapping said ends upon and securing them to opposite faces of the main portion of rubber by means of stitches, rivets or other suitable manner, as shown in Fig. 3. The ends of the rubber strip, in this case, will usually be long enough to pass the center of the body portion, and the three overlapping thicknesses are inclosed by the loop 8. The strap-loop 5 does not differ in construction, in any material respect, from that already described.

The buckle 6 may be either single, or double, and if preferred, buckles of any suitable pattern may be substituted for the rings, or frames, 4. The spring joint, or elastic connection, may be inserted or interposed in the strap 1 at any point preferred, either near one end, in the center, or at any point intermediate—

diating the center and either end, according to the particular use to which the strap is to be put, or to the circumstances of each case, and the elastic joint can be united to another strap, buckle, rope or cord.

Heretofore and prior to my invention a harness-attachment has been used consisting of a rubber strap connecting two metallic stirrups, or couplings, its elastic yield being limited by a check-strap connected to bolts in said stirrups and lying parallel with and upon one side of the rubber strap. The latter being attached to the bolts in the stirrups upon one side of the line of strain, said stirrups are subject to frequent change of position, due to the variations in strain, and are caused to rock upon the bolts to which the rubber is secured, thereby rapidly wearing the rubber away and cutting it through. This rocking of the stirrups, also, unfits the strap for use upon a trunk, which would speedily be destroyed by having the stirrups driven through its walls by falling thereon, or by dropping other trunks upon the stirrups. I am aware, also, that a check-rein has been devised in which a coiled spring is inserted in a loop in the strap, upon a guide-rod, the end of the spring being engaged by the hooked ends of a wire bail, the other end extending beyond the strap-loop and having an eye for the check-rein hook. The bail is rigidly secured to a band, or sleeve, which incloses and slides upon the strap-loop. This device differs entirely from my invention, in construc-

tion and function. In my invention the strap-loop may be shortened so as to render the rubber spring wholly inoperative: by varying the length of the strap-loop the elastic yield of the rubber may be varied in a corresponding degree; in my improvement, the spring, or elastic connection, is distended when strain is applied to the strap; the loops which pass over the strap-loop are permanently connected to the rubber strap, and, finally, the strap-loop may be wholly removed without in any manner affecting the other parts and without interfering with the use of the strap. The loop 8, is not fixed to the rubber 2, but is fitted around it, and may slide longitudinally on it. In all these particulars my invention is broadly different from the check-rein last mentioned.

What I claim is—

The combination of a rubber strap, rings or frames secured thereto, straps secured to said rings or frames, and an inelastic strap-loop loosely passing through the rings or frames and adjustably secured together at its ends, said inelastic strap-loop lying on both sides of the rubber strap, but wholly disconnected therefrom, substantially as described.

In testimony whereof I have hereunto set my hand and affixed my seal in presence of two subscribing witnesses.

WILLIAM W. BAYS. [L. s.]

Witnesses:

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