March 31, 1925. 1,531,672

W. H. McLEAN

ELASTIC ATTACHMENT FOR SADDLE GIRTHS, STIRRUP LEATHERS, BRIDLES, AND VARIOUS OTHER ARTICLES

Filed Sept. 24, 1923

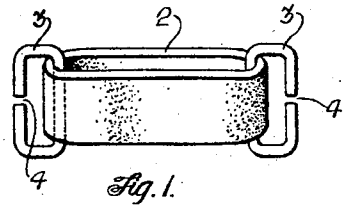


Fig. 1.

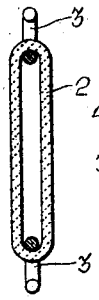


Fig. 2.

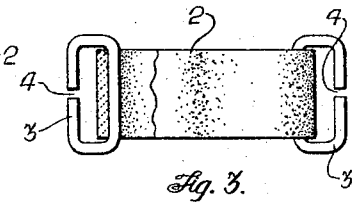


Fig. 3.

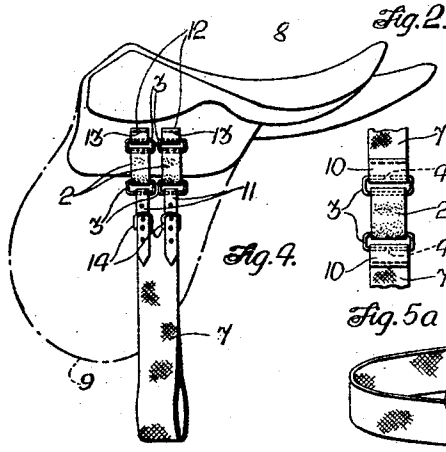


Fig. 4.

Fig. 5a

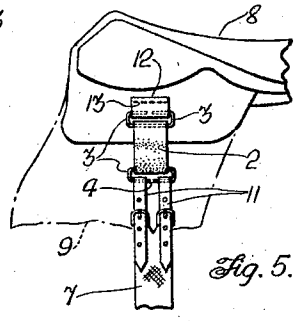


Fig. 5.

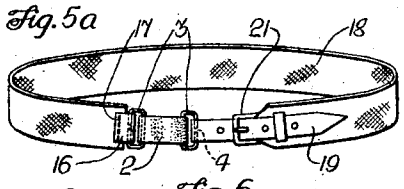


Fig. 6.

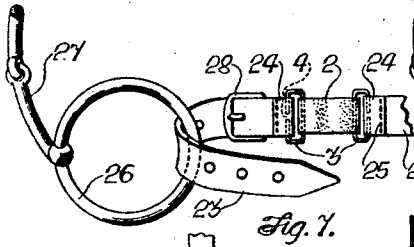


Fig. 7.

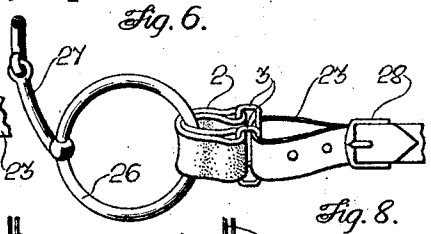


Fig. 8.

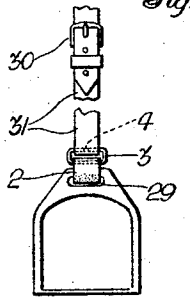


Fig. 9.

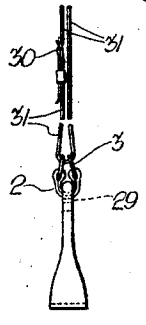


Fig. 10.

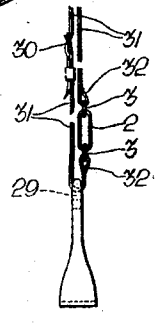


Fig. 11.

Inventor:

William Henry McLean

By Louis Bamberger

Attorney

Patented Mar. 31, 1925. 1,531,672

UNITED STATES PATENT OFFICE.

WILLIAM H. McLEAN, OF MALVERN, VICTORIA, AUSTRALIA.

ELASTIC ATTACHMENT FOR SADDLE GIRTHS, STIRRUP LEATHERS, BRIDLES, AND VARIOUS OTHER ARTICLES.

Application filed September 24, 1923. Serial No. 664,530.

To all whom it may concern:

Be it known that I, WILLIAM HENRY McLEAN, a subject of the King of Great Britain and Ireland, and a resident of the city of Malvern, a suburb of the city of Melbourne, in the county of Bourke, State of Victoria, Commonwealth of Australia, have invented certain new and useful Improvements in and connected with Elastic Attachments for Saddle Girths, Stirrup Leathers, Bridles, and various other articles, of which the following is a specification.

This invention relates to an improved elastic unit for attachment to saddle girths, surcingles, stirrup leathers, bridles, driving and leading reins, trotting hobbles, harness, and various other articles of an analogous nature, particularly saddlery and harness fittings, wherein it is desirable to impart an elastic effect to the ordinarily inelastic article.

As an example of a further analogous use of the invention it may be inserted in machinery belting to take up the slack frequently caused by the stretching of such belting. Other like purposes to which the invention may be applied will be hereinafter more readily apparent.

Various elastic devices have hitherto been proposed for saddle girths, surcingles, and the like such as by the insertion therein of sections of elastic webbing or springs. Such previous devices have however possessed disadvantages, as for instance the liability of rupture through rotting and breaking of the stitches by which the elastic sections are inserted in the girth. Furthermore the article has required special manufacture for the insertion of the elastic sections, the cost of construction being thus increased. In addition the elastic fabric or webbing material usually employed in such previous devices, soon loses its elasticity and cannot easily be renewed except by stitching a new section or sections in place.

In the case of the springs hitherto employed there have been obvious disadvantages such as their weight, cost and discomfort to the animal and also their liability to deterioration by continual use.

The object of the present invention is to provide an improved elastic attachment for purposes of the kind indicated, which is extremely simple, inexpensive and durable in construction and may be readily placed in its operative position and detached for renewal or other purposes when desired. Moreover the improved device constitutes a separate and compact attachment unit which may be made and sold independently and calls for no constructional alteration of the existing article to which it is to be applied.

Referring to the drawings which form part of this specification:—

Figure 1 is a perspective view of the improved elastic attachment.

Figure 2 is a longitudinal section thereof.

Figure 3 is a plan of the device, a portion of the endless elastic band being broken away.

Figure 4 is a perspective view showing two of the elastic attachment units in accordance with the invention, applied to a saddle girth, having two terminal straps. The saddle flaps are indicated in broken lines.

Figure 5 shows a single elastic unit in accordance with the invention applied to a similar saddle girth.

Figure 5A is a fragmentary view showing another method of inserting the elastic device in a saddle girth.

Figure 6 illustrates the invention applied to a surcingle or body roller used for securing horse rugs or the like in position.

Figures 7 and 8 illustrate alternative modes of applying the invention to a bridle or driving rein.

Figure 9 shows the invention applied to a stirrup leather or strap.

Figure 10 is a side view of Figure 9.

Figure 11 shows an alternative method of inserting the invention in a stirrup strap.

A device in accordance with the invention comprises an endless band or loop 2 of elastic material preferably rubber. This band may be of any desired size according to the purpose to which it is to be applied and may be quickly and economically constructed by cutting a rubber tube, for instance a disused motor tyre tube, transversely into a number of sections, each of which sections forms one of the endless elastic bands in accordance with the invention.

Attached to each said electric loop are two links or eyelet members 3 of metal or other suitable material which may be conveniently formed by bending a length of wire into the

form of an elongated loop, as shown, the two ends of the wire being left at a slight distance apart to thereby form an open mouth 4 through which the aforesaid rubber band 2 may be entered into the metal link and removed therefrom if it is desired to renew the elastic member. In addition the links 3 may be moved freely around the rubber band so that their positions may be altered in the event of the rubber becoming worn or damaged at particular points owing to continued engagement at such points of the links through which the strain is imparted to the elastic element as hereinafter indicated.

In applying the invention to a saddle girth 7 as in Figures 4 and 5, one of the links or eyelets 3 on the elastic band or loop 2 may be attached to the saddle 8 beneath the saddle flaps 9 and where the girth straps 11 are usually connected to the saddle. This attachment of elastic unit or units to the saddle may be effected, for instance by tabs 12 of leather, fabric or the like folded back or looped through the respective link 3 and stitched as at 13 to the saddle. Other suitable attachment means may however be employed. In fastening the saddle on the animal the terminal strap or straps 11 of the girth are looped through the other link or links 3 of the elastic unit or units and fastened by their buckles 14 in the usual manner. Instead of attaching the device to the terminal straps 11 as abovementioned, it may be inserted at any suitable point in the girth band 7, as indicated in Figure 5A which shows the girth band divided and the ends of the sections looped through the links 3 and secured as at 10.

Similarly in applying the device to a surcingle, body roller, or like band used for such purposes as securing rugs to horses, the device may be attached as in Figure 6 by means of a looped tab 16 passing through one of the links or eyelets 3, the tab being stitched as at 17 to one end of the surcingle band 18. In passing the latter around the animal, the usual terminal strap (or straps) 19 of the band is looped through the other link 3 of the elastic attachment and then tightened and fastened by the buckle 21 in the usual manner.

In applying the invention to a bridle or driving rein, each bridle or rein strap 23 may be divided and folded back or looped through the links 3 of the device as indicated at 24 in Figure 7, the folded portions of the strap being secured by stitches 25 or other suitable means. The end of the strap 23 is in this case passed through the respective ring 26 of the bit 27 and fastened by the buckle 28 in the usual manner. Alternatively one of the endless elastic bands 2 may be passed through each bit ring 26 and folded back upon itself or doubled as in Figure 8. The bridle or rein strap 23 may be then passed in the form of a loop through the oppositely disposed or coinciding links 3 and fastened by the buckle 28 as shown. By the insertion of the elastic device in a bridle or rein as abovementioned the animal will obviously be relieved of considerable discomfort through pulling on the mouth, whilst at the same time proper control by the rider or driver is maintained.

As seen in Figures 9, 10 and 11, the invention may be similarly applied to stirrup straps so that the shock caused by the rider standing up in the stirrups, as for instance when pulling up suddenly or jumping, will be absorbed by the elastic members with considerable advantage to both the rider and the animal. In Figures 9 and 10, the elastic device is shown as applied by folding or doubling the rubber band 2 so that it passes through the eyelet opening 29 of the stirrup, and the links 3 are disposed opposite and adjacent each other to receive the lower portion of the stirrup strap 31. In this case, the links 3 may be attached to the rubber band 2 after the latter has been passed through the stirrup opening 29, by slipping the edge of the rubber band through the open mouths 4 of the links. The end of the strap 31 is then passed through the oppositely disposed links and fastened by the usual buckle 30. Alternatively, the invention may be applied to the stirrup strap 31 as in Figure 11 which shows the strap divided and the elastic attachment interposed between the upper and lower sections of the strap which is attached to the links 3 as at 32.

It will be evident that by folding or doubling the elastic member 2 as illustrated in Figures 8, 9 and 10, its resistance to distention will be increased. As, however, the degree of elasticity is governed primarily by the thickness and width of the rubber band, the size of the latter may vary in accordance with particular requirements.

As examples of the application of the invention to harness for draught purposes one, or more of the elastic attachments may be inserted, for instance, in the reins, the traces, or the girth straps of the harness saddle to impart the desired elasticity thereto.

It will be evident from the foregoing that the mode of attaching the invention may vary for different articles, but in all cases the links 3 provide the necessary means for connecting the elastic member to the desired object. The improved device has the distinct advantage that the endless rubber or elastic band 2 may be readily removed for renewal or other purposes by passing it through the open mouths 4 of the links 3. Furthermore, the elastic member is capable of free sliding movement through the links so that by altering the position of

the latter the wear on the rubber at its points of contact with the links, may be distributed around the band.

It is to be understood that the various practical adaptations of the invention above described and illustrated in the drawings, are given merely by way of example and not in a limiting sense, the improved device being capable of application to other analogous uses, particularly in connection with harness and saddlery fittings, without departing from the spirit and scope of the invention as defined by the appended claims.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A harness strap of inextensible material, having included in it an extensible unit comprising two spaced, elongated end links through which the adjacent portions of the strap are loosely passed, and an endless elastic band connecting the links and also loosely engaged therewith; said links having open mouths to enable the band to be moved edgewise therethrough incidental to its attachment to or removal from the links.

2. As a new article of manufacture, a leather harness strap adapted to be passed around the body of a horse and having a buckle for adjustably securing its ends together; said strap having included in it an extensible unit comprising a pair of end links through which the adjacent portions of the strap are loosely passed, each link consisting of a single length of wire bent to form an elongated loop, the two ends of the wire being left a slight distance apart to thereby provide an open mouth, and an endless elastic band connecting said links and also loosely engaged therewith and adapted to be moved edgewise through said mouths incidental to its attachment to or removal from the links.

In testimony whereof I affix my signature.

W. H. McLEAN.

Witness:

VICTOR J. KELSON.