

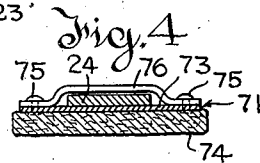
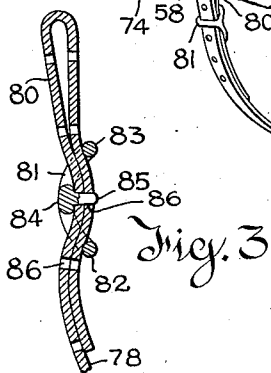
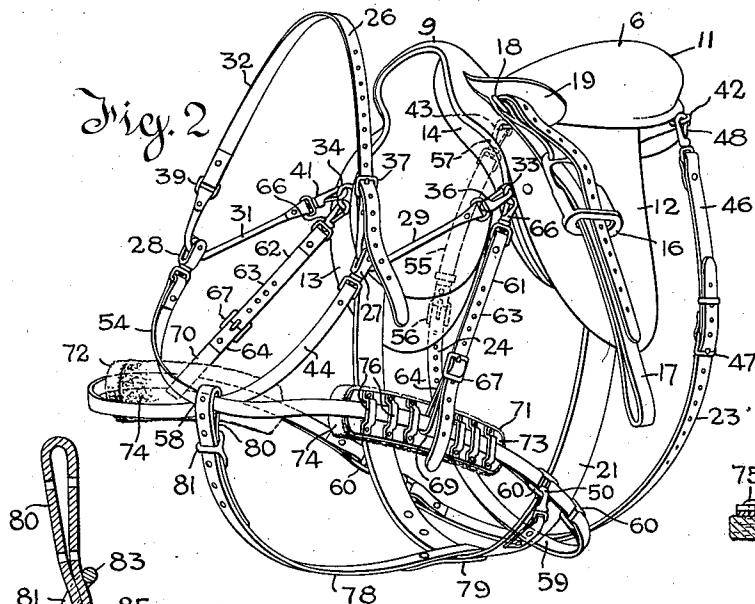
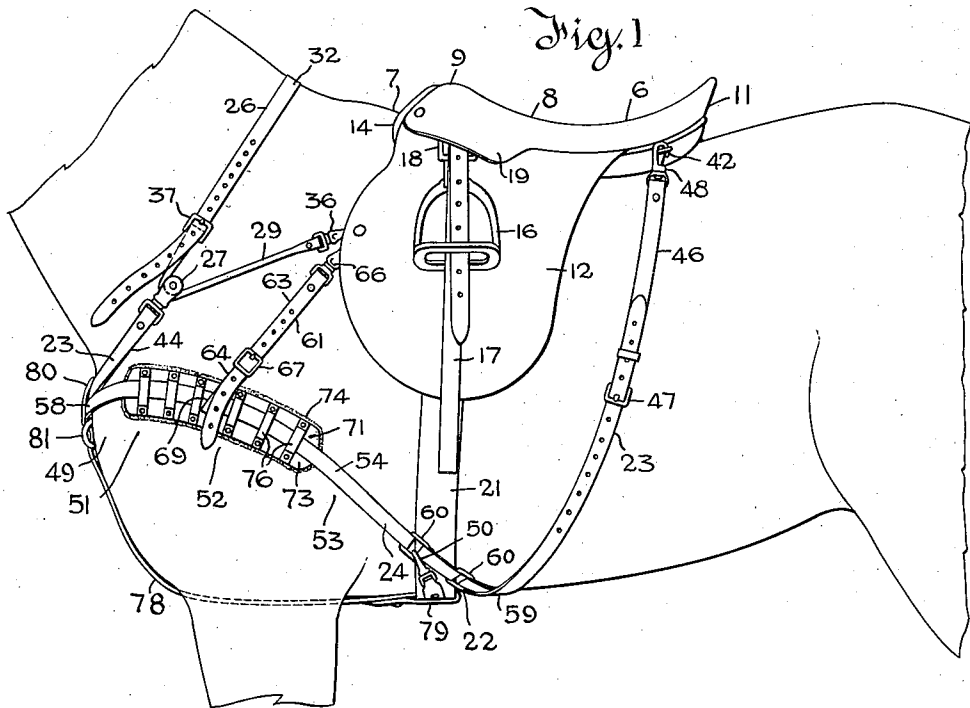
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R. L. DURHAM

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HARNESS

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Inventor
Robert L. Durham
Dodge and Inn
Attorneys

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HARNESS

Robert L. Durham, Buena Vista, Va.

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This invention relates to harness and more particularly to saddle harness.

Heretofore in the use of riding saddles for horses the saddle has been mounted on the horse's back and secured thereon, both against turning movement about the horse's body and against movement lengthwise of the horse's back, solely by means of the conventional girth or surcingle attached to the saddle and adjustably secured around the horse's belly by the usual buckle or the like. Thus, with this arrangement, maintenance of the saddle in proper position on the horse when the saddle is in use is dependent upon the degree of tightness to which the girth is drawn up and secured to bind the saddle and girth against the horse's body, and the resulting frictional engagement between these saddle harness parts and the horse's body which serves to resist movement of the saddle from its adjusted position.

In following the usual practice above-mentioned it frequently happens, especially in cases where the person saddling the horse is unable or fails to draw the girth sufficiently tightly or in the case of a round-barreled sleek-coated horse, that the saddle turns about the horse's body and thus out of proper position on the horse's back either as a result of application of the rider's entire weight to one side of the saddle as in mounting by means of a stirrup, or as a result of unequal distribution of the weight of the rider on the saddle and stirrups when mounted on the horse. Such turning of the saddle on the horse in attempting to mount by the stirrup obviously is dangerous because it may result in a fall for the rider. It is also extremely inconvenient since, unless the rider is able to tighten the girth so that the saddle will not turn when he applies his weight to the stirrup, obviously some means must be found from which the rider may mount directly into the saddle without using the stirrup. This may prove rather serious under certain circumstances as frequently such mounting means are not available.

Turning of the saddle on the horse under the rider after he has mounted, and particularly while the horse is in motion, is very dangerous because of the likelihood of a resulting fall from the horse. In the case of a woman riding side-saddle, the same danger of a turning saddle and a resulting bad fall is present as where a person rides astride the horse, while the likelihood of the saddle turning when riding side-saddle is probably greater because of the unequal distribution of the rider's weight on the saddle. In side-sad-

dle riding the danger of a serious fall is obviously greatly increased should the saddle turn or move upwardly on the side of the horse on which the rider's feet are located, since in this case the rider would fall over the horse and the rider's head and shoulders would receive the full impact of the fall.

The present invention involves the use with an ordinary saddle having a girth of two straps which lead respectively from opposite sides of the cantle, cross under the belly of the horse just to the rear of the girth, and thence pass forward over the point of the shoulder and again cross on the breast of the horse forward of the shoulder. A check strap confines the two main straps at this last-named point of crossing and leads between the forelegs of the horse to the girth. An equalizing connection leads from the forward portion of the saddle through a sheave on the end of a corresponding strap thence over the neck of the horse through a sheave on the end of the other strap and thence to the forward portion of the saddle. To maintain the main straps just-mentioned in position where they pass over the point of the shoulder, adjustable suspender straps are also connected to the forward portion of the saddle and are provided with guide loops in which the main straps are slidably supported and which thus control the position of the main straps on the point of the shoulder. Means are provided to adjust the length of the neck strap with the result of tensioning the entire harness either permanently or temporarily during the act of mounting. An incidental advantage of the arrangement is that it resists the back pull of the saddle during riding up-hill, and thus assists in maintaining the saddle in its proper position.

A further important feature is the adaptability of the improved saddle harness to different sized horses by the provision of means whereby the harness may be readily and properly adjusted to accommodate it to the size and muscular action of the particular horse to which it is applied. Also of importance is the fact that the complete improved saddle harness, which includes the saddle itself, is adapted for use with all types of saddles. Preferably, the parts of the saddle harness serving to secure the saddle in place on the horse are in the form of an attachment provided with means for its ready connection to and disconnection from the saddle.

Further features of the saddle harness include its light weight and simplicity, avoidance of undesirable rubbing of harness parts against the

horse's skin or interference by the harness with muscle action or any other movement of the horse's body, ease of application of the harness to the horse and its removal, and the provision for manual adjustment of the harness at a single point so that the tension in the harness which serves to prevent turning of the saddle may be readily varied. Other objects and advantages will appear later.

Reference is had to the accompanying drawing which discloses a practical embodiment of the invention, and wherein:

Fig. 1 is a side elevational view taken from the left side of the horse and showing the complete saddle harness, including the saddle, arranged and adjusted in position on the horse ready for use;

Fig. 2 is a perspective of the complete harness of Fig. 1 viewed from the same side and with all of the parts in the same operative position, but with the horse omitted in order to show the harness details;

Fig. 3 is an enlarged vertical section through the buckle and strap loop at the front end of the breast strap of the harness as shown in Figs. 1 and 2; and

Fig. 4 is an enlarged transverse section through one of the pads used at each side of the harness to protect the horse's body from undesirable rubbing by the harness.

Referring to the drawing, especially Figs. 1 and 2, the invention is shown for illustrative purposes as applied to an English-type saddle 6, although it is applicable to any type of saddle. As appears in Fig. 1, saddle 6 is mounted on the horse's back in the usual normal riding position with the saddle forward on the horse's withers at 7. Thus the saddle is arranged in a balanced position on the uppermost part of the horse's back so that, as viewed from above, it is located in a central or mid-position transversely of the horse's back.

Saddle 6 includes the usual seat 8, pommel 9, cantle 11, saddle skirts 12, 13, and covered and padded saddle-tree 14. Each stirrup 16 (only one shown) is adjustably suspended from the saddle in the usual manner by its stirrup strap 17 which is attached to the saddle at 18 beneath jockey 19. For sake of clearance, stirrup 16 is shown moved up on its stirrup strap 17 from its normal position at the lower end of this strap. Attached to the saddle is the usual depending girth 21 which embraces the horse's sides and belly 22 as shown in Fig. 1. By means of the conventional buckle or other adjustable connection on the girth (not shown), the girth is tightened and secured in the usual manner so as to bind the girth and the saddle as tightly as possible against the horse's body, and thus secure saddle 6 in its proper position as firmly as is possible by means of the conventional harness thus far described.

The harness means for positively engaging certain parts of the horse's body to firmly anchor the saddle in its proper riding position will now be described. These means primarily comprise duplicate saddle-securing or anchoring body straps 23 and 24 of loop form attached to the rear portion of the saddle at its opposite sides and extending forwardly about the horse's body, and an adjustable loop-type saddle-anchoring or securing neck strap 26 attached to the forward portion of the saddle on opposite sides of the horse and having the forward ends of body straps 23 and 24 slidably connected thereto by

swivel-eye pulleys 27 and 28 on the ends of straps 23 and 24 through which strap 26 extends.

Neck strap 26 is made up of end strap sections 29 and 31 of round cross section and an intermediate strap section 32 of flat cross section. Saddle rings 33 and 34 are secured at directly opposite points to the front portion of the saddle at either side of the horse, preferably by attachment to saddle skirts 12 and 13 or to the covered saddle tree 14 by any suitable means such as riveting. A swivel-eye snap-hook 36 on the rear end of strap section 29 detachably connects it to saddle ring 33. From this point, strap section 29 extends forwardly and downwardly across the horse's left or near shoulder, through pulley 27, and thence upwardly on the horse's neck where the front end of strap section 29 adjustably connects with the perforated left end of intermediate strap section 32 by means of a bar buckle 37. The U-shaped strap section 32 straddles the horse's neck and is supported thereby, as shown in Fig. 1. On the right or far side of the horse, strap section 32 has a link connection 39 with the front end of strap section 31. From this point, strap section 31 extends downwardly on the horse's neck, through pulley 28, and then upwardly and rearwardly across the horse's right or far shoulder. A swivel-eye snap-hook 41 on the rear end of strap section 31 detachably connects it to saddle ring 34.

Saddle rings 42 and 43 are secured at directly opposite points on the saddle cantle 11 at either side of the horse. Body strap 23 comprises a front section 44 and a rear section 46 adjustably connected together by the perforated rear end of strap section 44 and bar buckle 47 on strap section 46. Swivel-eye snap-hook 48 on the rear end of strap section 46 detachably connects it to saddle ring 42. It will be noted that body strap 23 extends from its pulley 27 across the horse's chest 49, then across the "point of shoulder" 51, upper arm 52 and elbow 53 on the right or far side of the horse, and then passes under the horse's belly 22 and upwardly on the horse's left or near side to snap-hook 48.

Body strap 24, which is a duplicate of body strap 23, comprises a front section 54 and a rear section 55 adjustably connected together by the perforated rear end of strap section 54 and bar buckle 56 on strap section 55. Swivel-eye snap-hook 57 on the rear end of strap section 55 detachably connects it to saddle ring 43. It will be noted that body strap 24 extends from its pulley 28 across the horse's chest where it crosses body strap 23 at 58, then across the "point of shoulder" 51, upper arm 52 and elbow 53 on the left or near side of the horse, and then passes under the horse's belly where it again crosses body strap 23 at 59 and continues upwardly on the horse's right side to snap hook 57. Buckle 47 in body strap 23, buckle 56 in body strap 24, and buckle 37 in neck strap 26 serve as means for readily adjusting the harness to accommodate it to different sized horses.

Similarly constructed and arranged, adjustable-length supporting straps 61 and 62 are provided at the horse's shoulders for properly supporting from the saddle the portions of body straps 24 and 23, respectively, which pass around the outside of the horse's shoulders. Each shoulder strap includes an upper strap section 63 and a lower strap section 64. Strap section 63 has a swivel-eye snap-hook 65 at its upper end to detachably connect it to saddle ring 33 (or 34). A loop-bar buckle 67 on the upper end of strap

section 64 adjustably connects it to the perforated end of strap section 63. The lower ends of shoulder straps 61, 62 are in the form of loops 69, 70, respectively, which slidably support body straps 23 and 24, the latter extending through the loops for free movement therein at all times so as not to interfere with proper movement of straps 23 and 24 either during adjustment of the harness or when the horse is in motion. Thus, by means of buckles 67, 67, the length of shoulder straps 61, 62 may be adjusted in order to hold up above the muscle action of each of the horse's shoulders or elbows the portions of body straps 23 and 24 which extend around the outside of the horse's shoulders. This precludes any hampering of the horse's movements by the harness when the horse is in action.

In order to avoid undesirable rubbing of body straps 23 and 24 against the horse's shoulders there are provided shoulder pads 71 and 72 mounted on body straps 24 and 23, respectively, so as to be interposed between said straps and the horse's body. Since these pads are similarly constructed and mounted, only pad 71 will be described. The pad, as shown in Figs. 1, 2 and 4, is of elongated form and comprises a thin hard leather outer member or back 73 and a thick felt inner or body layer 74 suitably secured to back 73 and frictionally engaging the horse's body. Secured to the outer face of pad back 73, as by rivets 75, is a longitudinal series of spaced traverse stiff leather loops 76. These loops, between the middle pair of which is located the loop on the lower end of shoulder strap 61 (or 62), are of flat form and may be provided in any desired number.

Body straps 23 and 24 extend with a loose fit through the series of loops 76 on the opposite pads 71, 72 so that straps 23 and 24 are always free to slide back and forth through these loops in contact with the hard leather backs of the pads. Since pads 71, 72 remain substantially stationary against the horse's shoulders at all times, there is thus avoided any objectionable rubbing of body straps 23, 24 against the horse's skin when the horse is in motion. Inasmuch as it is clear that the pads may be removed by withdrawing straps 23, 24 from pad loops 76, different length pads may be readily substituted for different sized horses.

As an additional means for positioning the straps I may use snap hooks 50 on girth 21 arranged to engage one of a series of square rings 60, interposed in each of the straps 23 and 24. This detail may be omitted.

An adjustable-length breast strap 78 is provided for holding down body straps 23, 24 where they cross at 58 (Fig. 1) on the horse's chest, so that these straps cannot ride up and bind around the horse's neck so as to shut off his wind. The rear end of breast strap 78 is anchored to girth 21 by means of a loop 79 thereon through which the girth extends. Strap 78 extends forwardly between the horse's forelegs, and at its forward end has an adjustable loop 80 through which extend the crossed body straps 23, 24 at 58. A buckle 81 provides for adjustment of the length of breast strap 78 and the size of loop 80 in a manner which will be clear from inspection of Fig. 3. Buckle 81 has a bottom bar 82 and a top bar 83 between which bars and a center bar 84 the two thicknesses of the upper folded end of breast strap 78 extend. As shown, breast strap 78 is secured in adjusted position in buckle 81 by a pin 85 on center bar 84 which engages

any desired pair of registered perforations 86 in the folded end of the strap. Thus, it will be clear that, by disengaging strap 78 from pin 85 and sliding the strap through the buckle and then re-engaging pin 85 with the desired pair of registered perforations 86, the size of loop 80 may be varied and also the overall length of breast strap 78 may be changed according to the size of the horse so that strap 78 will hold crossed straps 23, 24 at 58 in the proper position on the horse's chest.

The complete saddle harness described, including the saddle, is symmetrical in form since its construction is duplicated at opposite sides of the horse, except for the provision of adjusting buckle 37 on neck strap 32. Buckle 37, as explained, provides means for adjusting the overall effective length of neck strap 32 between its saddle-connecting snap-hooks 36 and 41. Since the front ends of body straps 23, 24 are slidably connected to neck strap sections 29 and 31 by means of pulleys 27, 28, it will be seen that adjustment of the length of neck strap 32 at buckle 37 serves to control the degree of snugness with which saddle-connected neck strap 32 and saddle-connected body straps 23, 24 positively engage and bind against the underlying parts of the horse's body and thus positively and firmly secure the saddle in its proper position against any possible turning thereof about the horse's body either during mounting of the rider by means of the stirrup or after the rider is mounted. It is thus apparent that adjustment of the length of neck strap 32 controls the tension of the system of saddle-connected harness straps 23, 24 and 32 which anchor the saddle in proper position so that, by shortening or lengthening neck strap 32 at buckle 37, the saddle may be secured as firmly as is desired against turning either to the right or to the left. It is also apparent that the rider by taking hold of neck strap 32 at buckle 37, when mounting, and applying his weight thereto by the pull in mounting, will temporarily increase the tension in the saddle harness system so as to further insure that the saddle is held firmly against its tendency to turn caused by the application of the rider's weight to the stirrup in mounting.

Maintenance of the saddle in proper position by the harness parts as described above, it will be noted, is entirely independent of girth 21 and its saddle securing function. After he is mounted, the rider may readily secure the saddle as tightly or as loosely in position against turning as he desires by the single point adjustment involving changing the length of neck strap 32 at buckle 37, the latter being conveniently located to his reach for this purpose. Pulleys 27, 28 permit neck strap sections 29, 31 to slide freely therethrough. This renders effective instantly in the harness any adjustment of the length of neck strap 32 at buckle 37 to tighten or loosen the harness, and also serves at all times to automatically equalize on both sides of the saddle the tension of the harness straps 23, 24 and 32 which act to prevent turning of the saddle out of position. Passage of neck strap 32 through pulleys 27, 28 also keeps the saddle forward on the horse's withers against the back-pull of uphill riding.

Thus, with the improved safety harness described there is no possibility of the saddle turning under any circumstances; hence, all danger of the rider having a fall as a result of a turning saddle is eliminated. By releasing the necessary

straps, buckles and snap-hooks, the saddle-securing harness parts may be readily detached from the saddle and removed from the horse and also equally readily reassembled in operative position on the horse and connected to the saddle to secure it against turning. The harness straps are of leather or other suitable material and may be of round or flat form at different points as is best suited to their purposes. The various swivel-eye type connections included in the harness serve to prevent undesirable twists from forming in the straps.

While a practical form of the device has been described, various changes therein may be made within the scope of the invention except as the same may be limited by the appended claims.

What is claimed is:

1. The combination of a riding saddle having a girth, a pair of stay straps leading respectively from the rear portion of the saddle in generally opposite directions under the belly of a horse to which the saddle is applied, the straps crossing near said girth and respectively passing thence over the points of opposite shoulders of the horse to a second point of crossing on the breast of the horse and beyond said crossing terminating in corresponding retaining loops for an equalizing strap; and an equalizing strap connected with the forward portion of the saddle at one side, passing thence through one of said loops over the neck of the horse through the other of said loops, and thence to a point of attachment with the forward portion of the saddle at the opposite side from the first point of attachment.

2. The combination of a riding saddle having a girth, a pair of stay straps leading respectively from the rear portion of the saddle in generally opposite directions under the belly of a horse to which the saddle is applied, the straps crossing near said girth and respectively passing thence over the points of opposite shoulders of the horse to a second point of crossing on the breast of the horse and beyond said crossing terminating in corresponding retaining loops for an equalizing strap; an equalizing strap connected with the forward portion of the saddle at one side, passing thence through one of said loops over the neck of the horse through the other of said loops, and thence to a point of attachment with the forward portion of the saddle at the opposite side from the first point of attachment; and means for adjusting the length of said equalizing strap.

3. The combination of a riding saddle having a girth, a pair of stay straps leading respectively from the rear portion of the saddle in generally opposite directions under the belly of a horse to which the saddle is applied, the straps crossing near said girth and respectively passing thence over the points of opposite shoulders of the horse to a second point of crossing on the breast of the horse and beyond said crossing terminating in corresponding retaining loops for an equalizing strap; an equalizing strap connected with the forward portion of the saddle at one side, passing thence through one of said loops over the neck of the horse through the other of said loops, and thence to a point of attachment with the forward portion of the saddle at the opposite side from the first point of attachment; and a strap connected with the girth and leading forward therefrom between the forelegs of the horse and terminating in a loop encircling said stay straps at their point of crossing on the breast of the horse.

4. The combination of a riding saddle having a girth, a pair of stay straps leading respectively from the rear portion of the saddle in generally opposite directions under the belly of a horse to which the saddle is applied, the straps crossing near said girth and respectively passing thence over the points of opposite shoulders of the horse to a second point of crossing on the breast of the horse and beyond said crossing terminating in corresponding retaining loops for an equalizing strap; an equalizing strap connected with the forward portion of the saddle at one side, passing thence through one of said loops over the neck of the horse through the other of said loops, and thence to a point of attachment with the forward portion of the saddle at the opposite side from the first point of attachment; a pair of pads each adapted to be positioned on the point of a corresponding shoulder of the horse; confining guides on the pads through which the respective stay straps pass between their two points of crossing; and suspender straps for sustaining said stay straps and said pads from the saddle.

5. The combination of a riding saddle having a girth, a pair of stay straps leading respectively from the rear portion of the saddle in generally opposite direction under the belly of a horse to which the saddle is applied, the straps crossing near said girth and respectively passing thence over the points of opposite shoulders of the horse to a second point of crossing on the breast of the horse and beyond said crossing terminating in corresponding retaining loops for an equalizing strap; an equalizing strap connected with the forward portion of the saddle at one side, passing thence through one of said loops over the neck of the horse through the other of said loops, and thence to a point of attachment with the forward portion of the saddle at the opposite side from the first point of attachment; a strap connected with the girth and leading forward therefrom between the forelegs of the horse and terminating in a loop encircling said stay straps at their point of crossing on the breast of the horse; a pair of pads each adapted to be positioned on the point of a corresponding shoulder of the horse; confining guides on the pads through which the respective stay straps pass between their two points of crossing; and suspender straps for sustaining said stay straps and said pads from the saddle.

6. The combination of a riding saddle having a girth, a pair of stay straps leading respectively from the rear portion of the saddle in generally opposite directions under the belly of a horse to which the saddle is applied, the straps crossing near said girth and respectively passing thence over the points of opposite shoulders of the horse to a second point of crossing on the breast of the horse and beyond said crossing terminating in corresponding retaining loops for an equalizing strap; means for connecting each of said straps with said girth; and an equalizing strap connected with the forward portion of the saddle at one side, passing thence through one of said loops over the neck of the horse through the other of said loops, and thence to a point of attachment with the forward portion of the saddle at the opposite side from the first point of attachment.

7. The combination of a riding saddle having a girth, a pair of stay straps leading respectively from the rear portion of the saddle in generally opposite directions under the belly of a horse to

which the saddle is applied, the straps crossing near said girth and respectively passing thence over the points of opposite shoulders of the horse to a second point of crossing on the breast of the horse and beyond said crossing terminating in corresponding retaining loops for an equalizing strap; means carried by the girth for positioning each of said straps relatively to the girth; an equalizing strap connected with the forward portion of the saddle at one side, passing thence through one of said loops over the

neck of the horse through the other of said loops, and thence to a point of attachment with the forward portion of the saddle at the opposite side from the first point of attachment; and a strap 5 connected with the girth and leading forward therefrom between the forelegs of the horse and terminating in a loop encircling said stay straps at their point of crossing on the breast of the horse.

ROBERT L. DURHAM.