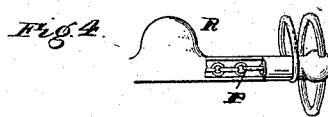
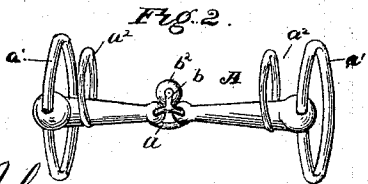
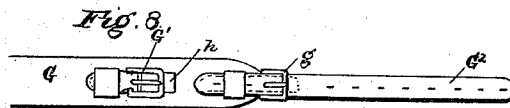
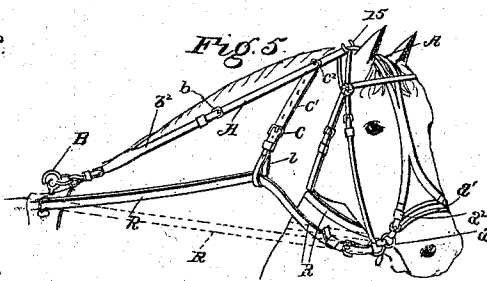
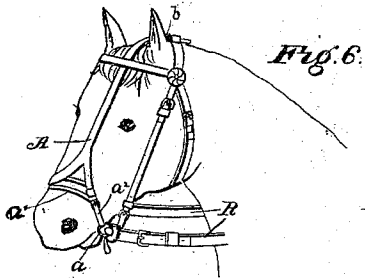
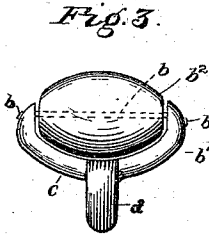
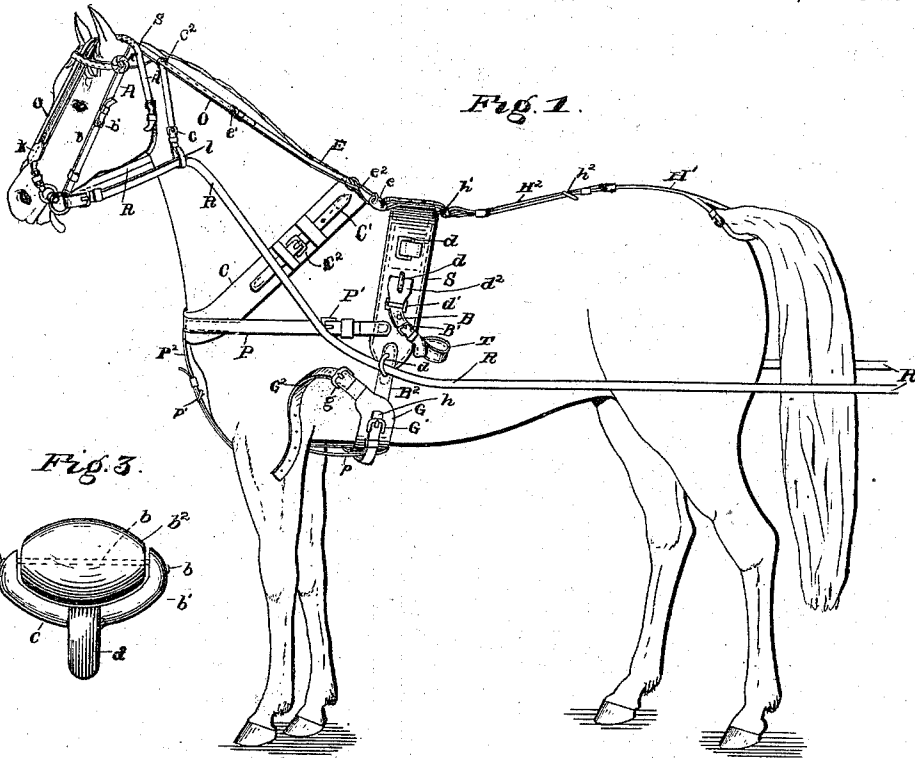


(No Model.)

W. H. SANBORN.
HARNESS.

No. 530,461.

Patented Dec. 4, 1894.



Witnesses

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TO M. A. BOURNE, OF SAME PLACE.

HARNESS.

SPECIFICATION forming part of Letters Patent No. 530,461, dated December 4, 1894.

Application filed February 3, 1892. Renewed June 5, 1894. Serial No. 513,592. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. SANBORN, a citizen of the United States, residing at Rutland, in the county of Rutland and State of Vermont, have invented certain new and Improved Apparatus for Controlling and Educating Vicious Horses and Unbroken Colts; 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 apparatus for controlling and "breaking" horses, and the objects in view are to provide means in connection with a bit for causing pressure, when desired, against the roof of the mouth of the horse; to provide an improved construction of bridle rigging for maintaining a bit provided with such pressure devices in operative position; to provide means in connection with other portions of the harness for guiding the reins by which the bit is manipulated, and hitching devices whereby the horse may be attached to and detached from a vehicle with facility and rapidity; and furthermore, to provide means for the adjustment of the various parts of the harness, whereby the same may be fitted snugly to a horse of any size, and whereby the pressure caused by said pressure device may be regulated according to the viciousness of the horse.

Further objects and advantages of the invention will appear in the following description and the novel features thereof will be particularly pointed out in the claims.

In the drawings: Figure 1 is a view of the apparatus embodying my invention applied in the operative position to a horse. Fig. 2 is a perspective view of a bit forming a part of the improved apparatus. Fig. 3 is a view of a pressure button with means for attaching the same to a four-ringed bit. Fig. 4 is a view of a modified form of bit showing a pressure button in connection therewith. Fig. 5 is a view of the head or bridle rigging, showing an ordinary form of over-draw check, and the means for adapting the same for use in connection with a bit having the pressure button. Fig. 6 is a view of an ordinary riding bridle, showing the means for using a bit

having the pressure button in connection therewith. Fig. 7 is a view of a crown piece to show the guides for the parts of the over-draw check when the latter is constructed as shown in Fig. 1. Fig. 8 is a view of a part of a girth with attached billet as used in connection with my apparatus.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

Referring to Figs. 2 and 3, 1 indicates a four-ringed bit comprising relatively movable members connected at their inner or adjacent ends by a line 3 and provided at their outer ends with the rein-rings 4 and the adjacent check-reins 5, all substantially of the ordinary construction and arrangement. Carried by this intermediate or connecting link, and preferably formed integral therewith, is a frame 6, consisting of upwardly extending arms, and between the arms is mounted a pressure-button 7, adapted to bear against the roof of the mouth of the horse.

Different forms of pressure buttons may be employed in connection with a flexible bit, but in Figs. 2 and 3 I have illustrated a rotatable button, of ellipsoidal form, mounted upon an axial pin 8. A spherical button may be substituted for that shown in said figures.

In Fig. 4 I have shown a modified form of button and bit for carrying the same, in which the body-portion of the bit is constructed of links, as shown at 9, and is inclosed in a sheath of rubber 10, the pressure button, 11, being formed of rubber, and preferably integral with the sheath. The rotatable button is preferable to the fixed button for the reason that the latter, in addition to pressing against the membranes of the roof of the horse's mouth, rubs against the same, and the friction besides being unnecessarily harsh may under certain unfavorable conditions prove injurious.

Attached to the inner or check-rings of the bit are the front ends of the members of a divided over-draw check 12, which passes upward and through suitable guides 13 in the crown-piece 14. The rear ends of the members of the check are attached to extension billets 15 which carry a snap-hook 16 for engagement with the check-hook 17, and said

billets are adjustable, by means of the buckles 18, to vary their length. Slidably mounted upon the members of the check is a keeper 19, which when adjusted downward to a point 5 adjacent to the bit holds the portions of the members, between the keeper and the check-rings in a position approximately perpendicular to the roof of the mouth of the horse. By varying the position of the keeper on the 10 check the desired angle of these adjacent portions of the members to the roof of the mouth may be attained, for a purpose hereinafter explained, and by arranging the keeper adjacent to the plane of the eyes of the horse 15 the effect of an ordinary check may be obtained. The keeper may be secured at the desired adjustment by means of the thong 20.

The crown-piece is connected to the bit by means of the check-straps 21, which after 20 passing through the rings of the bit are doubled upon themselves and engage the buckles 22, whereby the necessary adjustment may be made, and the throat-latch 23 is also attached to the crown-piece and is provided 25 with means for adjustment.

Connected at their front ends to the outer rings of the bit are the reins 24, which pass through pendent guide-loops 25, suspended from the check by means of billets 26. The 30 upper ends of the billets 26 are attached to the members of the over-draw check by means of buckles 27 whereby the loops may be adjusted toward or from the crown-piece, and the loops are connected to the billets by 35 buckles 28 by which they may be adjusted vertically. By the proper adjustment of these parts the pendent guide-loops may be arranged in such positions as to hold the portions of the reins between the loops and the 40 bit approximately in alignment with the portions of the check between the keeper and the bit, or approximately perpendicular to the roof of the mouth of the horse; and in addition to this the supporting billets may be 45 arranged, by said means of adjustment, so that the draft thereon, caused by the reins, will be approximately in line with the portions of the over-draw-check to which the billets are secured, whereby draft on the 50 reins will produce a backward strain upon the outer or rein-rings of the bit and a forward strain on the inner or check-reins, thus converting the members of the bit into levers of which the check-reins are the fulcrums, 55 and causing the inner ends of the members, with the pressure-button, to move toward the roof of the mouth of the horse. More or less pressure may be caused, with the same draft upon the reins, by the relative adjustment of 60 the several parts of the apparatus, to suit the temperaments of different horses under treatment.

In order to cause the draft upon the reins to be substantially in alignment with the 65 billets supporting the guide loops, I provide the saddle 29, with a series of guides 30, through which the reins are passed. If the

reins are passed through the lower guides a greater strain can be brought upon the curb- 70 ing apparatus than if they are passed through the upper guides, for the reason that the former arrangement causes the intermediate portion of the reins, (between the fixed and the movable or swinging guides) to lie substantially in alignment with the billets which 75 support said movable or swinging guides.

The back-strap is attached to the saddle by means of a ring 31 on the latter through which the strap 32 extends, said strap being 80 doubled upon itself and having its free end engaged in a buckle 33, whereby the adjustment of the back-strap to suit the length of the horse may be accomplished with facility. The collar 34 is provided with suitable means 85 for adjustment, as shown at 35 and 36, the former being a buckle in which the latter, a billet, is engaged, and said collar is connected to the saddle by means of a holding-strap 37, also provided with a buckle 38, for adjustment, to prevent the rearward movement of 90 the saddle on taper barrel horses.

The breast-plate 39, is connected to the girth 40 by means of a billet 41, which passes around the girth and has its free end engaged by the 95 buckle 42, to provide the necessary adjustment. The shaft-tug 43 is connected by the billet 44 to the fastening plate 45 which is secured to the saddle, and the billet 46 on the girth is adapted to engage a buckle on said 100 tug-supporting billet.

The operation and advantages of the various parts of the apparatus will be readily understood from the foregoing description, and it will be seen that by disengaging the reins 105 from the various guides and disposing the keeper of the overdraw-check at such a point as to allow the lower portions of the members of the check to assume the natural or ordinary position, the above described harness may be 110 used for ordinary driving purposes. When used for the purpose of training horses, and accustoming them to the restraint involved in ordinary use, the severity of the infliction caused by the pressure of the button may be 115 varied to suit the necessities of the particular cases.

In the modification shown in Fig. 5 the ordinary form of over-draw check is adapted to accomplish the object of my invention by connecting the branches 47 thereof by means of 120 a lashing or thong 48, so that the portions of the check adjacent to the ends of the bit will be at right-angles, approximately, with the roof of the horse's mouth. The other portions of the apparatus are constructed substantially as hereinbefore described, the dotted 125 lines showing the positions of the reins when disengaged from the guiding loops to adapt the harness for ordinary driving purposes.

In Fig. 6 I have shown a bifurcated face- 130 strap 49, attached at its upper end to the crown-piece 50 and at its lower ends to the check-rings of the bit, and fulfilling the func-

tions, as hereinbefore described, of the over-draw check, the parts of the bifurcation being held in the proper position, as before indicated, by means of a lashing or thong 51. This form of the apparatus is particularly adapted for riding bridles, or those having a side instead of an over-draw check.

It should be noted in connection with the improved bit that the connecting-link between the members thereof is arranged at an inclination to the axis of the pressure button, to avoid chafing the tongue of the horse, or pinching the same between the link and the contiguous ends of the members.

In operation the reins may be and under certain circumstances should be drawn alternately, in rapid succession, thus causing the elevation of the pressure button and the lateral movement thereof across the roof of the mouth, and it is this lateral movement in addition to the pressure which is applied through the button which enables the operator or trainer to obtain perfect control of the horse in a minimum length of time. This substantially longitudinal movement of bit, and this rolling action upon the roof of the mouth necessitate the arrangement of the button with its axis transverse to the length of the bit. It should be noted furthermore that in controlling a kicking horse it is necessary to prevent the horse from lowering his head, and therefore it is necessary to employ a check by which the head may be held at the desired elevation. This feature of the harness is supplied by the over-draw check above described, and shown in the accompanying drawings, the same being connected or attached to the saddle and being adjustable as to length, and in order to apply the necessary upward draft upon the check rings I provide the above described connection between the reins and the check in rear of the crown piece, such connection consisting of pendent loops through which the reins pass at points between the bit and the saddle, billets which support said loops, and adjustable

connections between the billets and the members of the check. This combination of parts enables the trainer to secure the head of a horse in position to prevent kicking while it gives him full control of the bit and enables him to manipulate it as desired to obtain control of the horse.

It will be understood that in practice various changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described my invention, I claim—

1. The combination with a flexible four-ringed bit, and means for moving the check and rein rings in opposite directions to elevate the central or intermediate portion of the bit, of a rotatable pressure button arranged at the center of the bit with its axis transverse to the length of the same, whereby when the rings at opposite ends of the bit are strained alternately, said button is caused to roll transversely across the roof of the mouth, substantially as specified.

2. The combination with a bit having check and rein-rings and an intermediate pressure button, of an over-draw check attached to the check-rings, a crown-piece having guides for the said check, means for securing the crown-piece in place, a saddle, connections between the check and the saddle, pendent loops connected to the check, guides on the saddle, reins attached to the rein-rings and extending through said loops and guides, a collar, connections between the collar and the saddle, and an adjustable back-strap connected at its front end to the saddle, substantially as specified.

In testimony whereof I affix my signature, in the presence of two witnesses, this 20th day of January, 1892.

WM. H. SANBORN.

Witnesses:

W. H. SPAULDING,
BERNARD A. CONOLLY.