

I. FOX.
BITLESS BRIDLE.
APPLICATION FILED JUNE 2, 1911.

1,015,165.

Patented Jan. 16, 1912.

FIG. 1

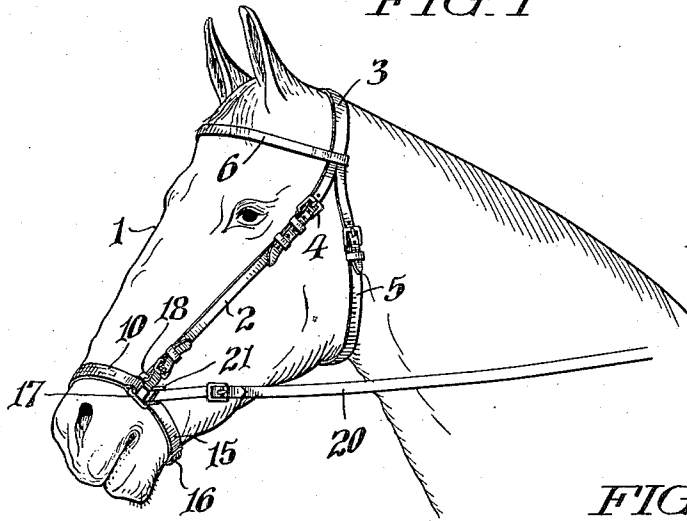


FIG. 2.

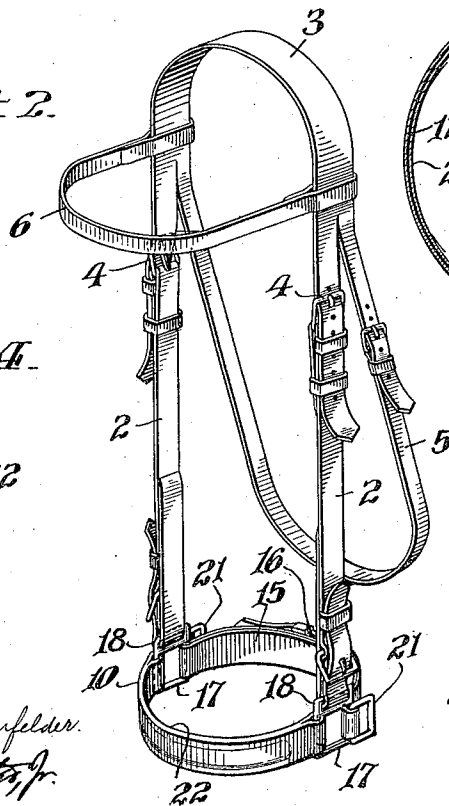


FIG. 4.

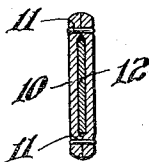
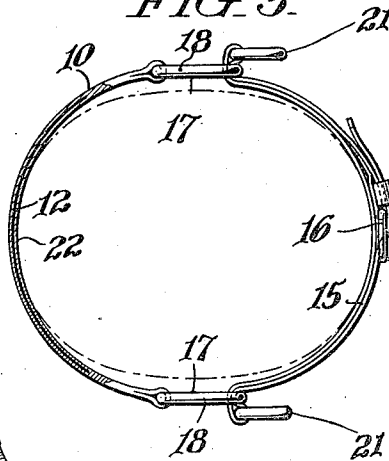


FIG. 3.



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BITLESS BRIDLE.

1,015,165.

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To all whom it may concern:

Be it known that I, IVAN FOX, a citizen of the United States, residing at Media, in the county of Delaware, State of Pennsylvania, have invented certain new and useful Improvements in Bitless Bridles, of which the following is a specification.

My invention relates to improvements in bridles which may be employed for use in guiding horses without the employment of bits.

The principal object of my invention is to provide a bitless bridle with means by which a horse can be guided and controlled promptly, being brought to a full stop when desired without closing his nostrils and thereby preventing him from breathing.

I have found that by the use of a bitless bridle embodying my invention, a horse can be much more easily and positively controlled and guided than by the use of any form of bridle having a bit heretofore made, such control and guidance being effected with my invention without cutting or injuring the horse's mouth.

The object sought to be accomplished by my invention is effected by providing a nose band having a radius of curvature greater than the radius of curvature of the nasal bone of the horse by which the bridle is worn and in which band the central segmental portion is stiff and rigid so that said band presses or is adapted to press more firmly and with greater force in use upon the crest of the nasal bone than upon the side portions of said bone.

Other objects and advantages of my invention will be referred to in the detailed description of my invention which follows or will be apparent therefrom.

One form of a convenient embodiment of my invention is illustrated in the accompanying drawings but it should be understood that changes in the details of construction may be made within the scope of the claims without departing from my invention.

In the drawings:—Figure 1 is a view substantially in side elevation of a horse's head and neck having thereon a bitless bridle embodying my invention; Fig. 2 is a perspective view of such a bridle embodying my invention; Fig. 3 is a top plan view, partly in section, of the nose band or strap and the under jaw strap and the rings for connecting the said straps embodying my invention; and Fig. 4 is a transverse section of the

nose band or strap showing the rigid stiffening piece therein.

Referring to the drawings, 1 designates a horse's head on which the bitless bridle embodying my invention is fitted.

2 designates cheek straps and 3 designates a head piece connected to the cheek straps by buckles 4 but if desired the cheek straps and head piece may be integral. The cheek straps 2 and head piece 3 are retained in position by means of the throat strap 5 and brow band 6.

10 designates a nose band or strap which preferably, though not necessarily, consists of two thicknesses of leather or other suitable material secured together by top and bottom rows of stitches 11, as is indicated in Fig. 4 of the drawings. If desired other suitable means may be employed for securing together the double thicknesses of material employed in the construction of the nose band or strap.

Inserted between the members of the nose band or strap 10 is the rigid stiffening member 12 consisting preferably of metal of a curvature having a radius greater than the radius of curvature of the nasal bone of the horse's head by which the bridle is worn, as is indicated in Fig. 3, in which the general outline of the horse's head (at the point where it is surrounded by the nose band or strap 10 and the strap 15 extending around the under jaw) is indicated in dotted lines.

The nose band 10 and the under jaw strap 15 extend around the lower portion of the horse's head in such position that in use when a pulling force is exerted upon the reins for the purpose of controlling the animal his mouth will be closed.

It is desirable that the strap 15 should be adjustable and such adjustment is accomplished by means of the buckle 16 by means of which the opposite ends of the folded strap are connected, as is clearly indicated in the drawings.

17 designates metallic members preferably of rectangular shape to which the opposite ends of the nose strap or band are connected. The opposite ends of the folded under jaw strap 15 extend through the said members 17 and are adapted to slide back and forth therein.

In order to prevent the strap 15 from engaging with the lower ends of the cheek straps 2, I have provided cross members 18 which are interposed between the lower ends

of the said cheek straps and the opposite ends of the nose band and the under jaw strap 15.

The nose band 10 is located a distance 5 above the nostrils of a horse, as illustrated, to prevent closure thereof.

The stiffening member 12 being of a radius of curvature greater than that of the nasal bone over which the said member extends, serves also as a means to prevent pressure of the band 10 upon those parts of the face or head of the animal immediately over the respiratory tracts or passages leading up from the nostrils and thereby is very effective in avoiding interference with the horse's respiration. This is a very important and essential matter in cases where horses are being ridden or driven at high speed over great distances, as, for instance, in trotting 10 races, running races, steeple chases, etc. It is also desirable that the nose band 10 should be of a length less than the semi-circular distance around the front lower part of a horse's head so that the outer and rear edges of the members 17 shall be about 25 in alinement with lines extended upwardly from the corners of the horse's mouth. It is also desirable and preferable that the under jaw strap 15 shall be so adjusted that the buckles 21 at the opposite ends thereof shall 30 occupy positions in close proximity to the buckles or equivalent members 17 to thereby prevent unnecessary lost motion due to the sliding of the strap through the member 17 35 when there is a pull upon either the right or the left rein of the bridle. The purpose in locating the buckles or equivalent members 21 in close proximity to the members 17 is that the horse shall respond quickly to a pulling force exerted either to the right or 40 to the left upon the reins 20.

By reason of the fact that the nose band or strap 10 is made of a length somewhat less than the semi-circumferential distance 45 around the front lower part of the horse's head so that the outer rear edges of the member 17 shall occupy positions as above stated, a pulling force upon the right or the left rein for the purpose of guiding the force is exerted directly upon the upper jaw and also 50 by reason of the fact that the members 21 are situated in close proximity to the member 17 the force exerted upon the reins is transmitted without lost motion due to the sliding of the under jaw strap through the member 17 to the upper jaw of the horse's head whereby there is an immediate response 55 by the animal to the pulling force exerted upon the reins. This effect is, however, enhanced by the fact that the nose band beyond the opposite ends of the rigid stiffening member 12 is flexible so that its opposite ends may be flexed laterally so as to 60 move readily into position directly against 65 either side of the animal's head.

Preferably the stiffness or rigidity of the stiffening member 12 is such that the pulling forces to which it is subjected in ordinary use are not sufficient to cause it to bend. The result, therefore, is that in ordinary use 70 the pressure of the nose band is applied to the crest or high portion of the nasal bone of the horse's head at the point around which the nose band or strap 10 extends. Such pressure causes the animal to yield 75 readily and he is thereby easily controlled without in any way interfering with his breathing.

An important feature of my invention is that the central segmental portion of the nose band 10 shall be of a rigidity and stiffness sufficient to prevent it from bending and of a radius of curvature greater than the radius of curvature of the nasal bone of the horse by which the bridle is worn so 85 that the main pressure exerted thereby due to a force exerted upon the reins or otherwise is applied to the crest or front part of the nasal bone and also so that the portions of the band on opposite sides of the 90 nasal bone are prevented from exerting pressure over or upon the respiratory tracts as above stated. But it is unimportant of what material the band may be made, whether of part metal and leather or fabric of any kind 95 combined as shown or otherwise, or whether entirely of metal.

Having thus described my invention, I claim:—

1. In a bitless bridle, the combination of 100 cheek straps, an under jaw strap and a flexible nose band having a rigid member secured thereto and extending throughout a portion only of the length of said band and said rigid member being of greater curvature 105 than the curvature of the nasal bone of the horse by which the bridle is worn.

2. In a bitless bridle, the combination of the head band or strap, cheek straps secured thereto, an under jaw strap, a nose 110 band, members for connecting the cheek straps, the nose band and the under jaw strap together, the opposite ends of the under jaw strap sliding through the said means, and reins connected to the opposite 115 ends of said under jaw strap, and the said nose band having a stiff metallic member secured thereto intermediate its ends, the said member being curved and having a curvature greater than the curvature of the 120 front lower portion of the horse's head over which the nose band extends.

3. In a bitless bridle, the combination of cheek straps, a nose band, an under jaw strap, and loops for connecting the said 125 straps together, the nose band being of a length less than the circumferential distance around or over the front lower part of a horse's head around which the said band extends, and the said band being pro- 130

vided with a curved metallic stiffening member of a wider curvature than that portion of the front lower part of the horse's head around which it extends, and the opposite ends of the under jaw straps extending through the said loops and terminating at points in close proximity to the said loops, and means secured to the opposite ends of said under jaw strap for exerting a pull thereon.

4. In a bitless bridle, the combination of cheek straps and head band, an under jaw strap, a nose band, the said nose band being provided with a centrally disposed rigid member of less length than the said band so as to provide portions of said band beyond the ends of said rigid member which portions are flexible and are adapted to flex laterally into engagement with the sides of the horse's head, and means for connecting said nose band, under jaw strap and cheek straps together.

5. In a bitless bridle, the combination of cheek straps, a nose band, an under jaw strap and buckles or loops for connecting the said band and strap together, the said band being provided with a curved metallic stiffening member at its center of less length than the band, and the opposite ends of the under jaw strap extending through the said buckles or loops and terminating at points in close proximity to the said buckles or loops, and means secured to the opposite ends of said under jaw strap for exerting a pull thereon and upon the opposite ends of the said band.

In testimony that I claim the foregoing as my invention, I have hereunto signed my name this 31st day of May, A. D. 1911.

IVAN FOX.

In the presence of—

EDWARD J. FISHER,
CARRIE E. KLEINFELDER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."