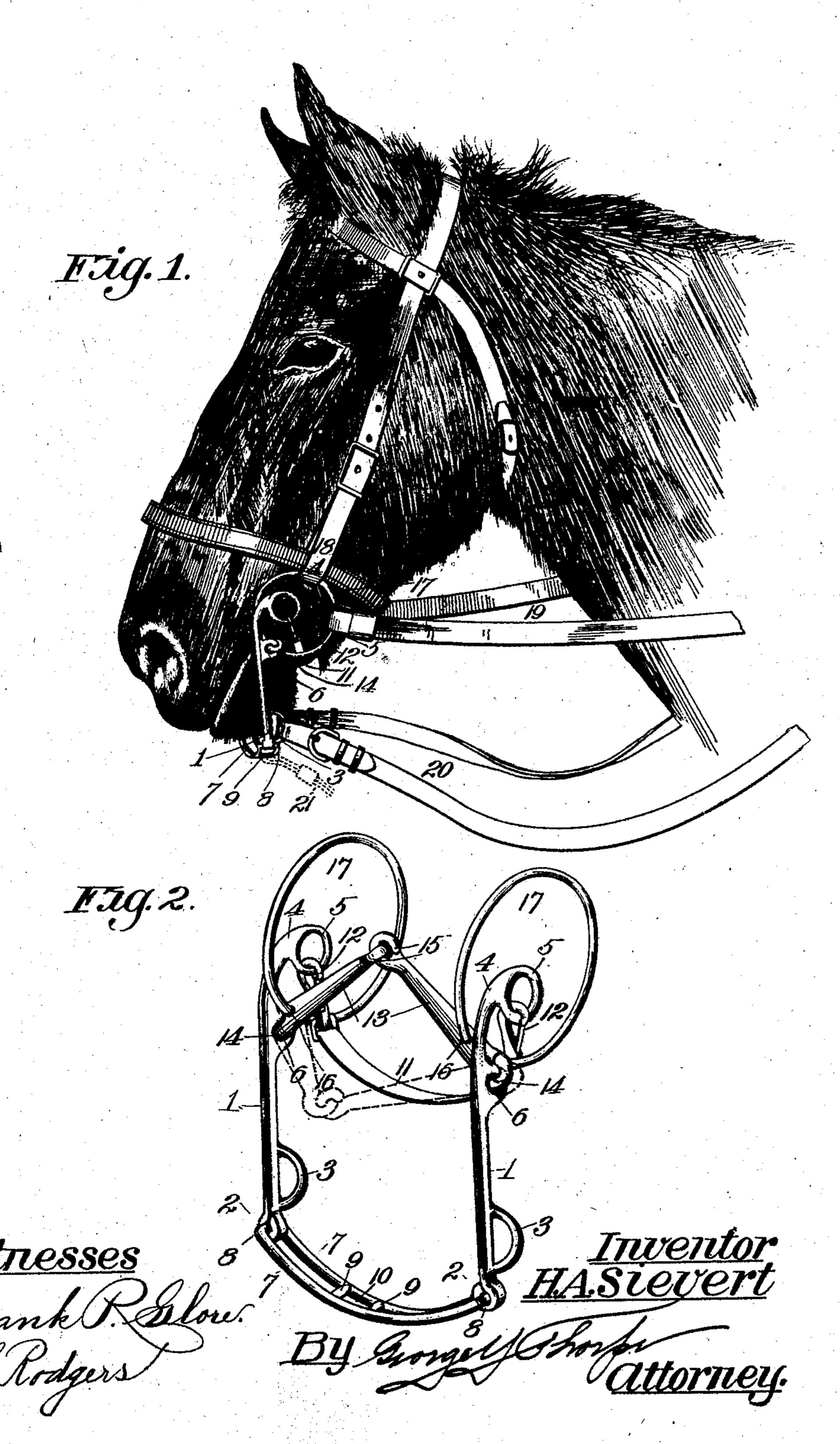
H. A. SIEVERT.

BRIDLE BIT.

APPLICATION FILED JAN. 3, 1905.



UNITED STATES PATENT OFFICE.

HERMANN A. SIEVERT, OF THE UNITED STATES ARMY.

BRIDLE-BIT.

No. 815,385.

Specification of Letters Patent.

Patented March 20, 1906.

Application filed January 3, 1905. Serial No. 239,304.

To all whom it may concern:

Be it known that I, HERMANN A. SIEVERT, of the United States Army, a citizen of the United States, have invented certain new 5 and useful Improvements in Bridle-Bits, of which the following is a specification.

This invention relates to bridle-bits, and is designed more especially as an improvement on the bridle-bit on which Patent No. 773,429 10 was issued to me October 25, 1904, my object being to produce a bit of greater efficiency and strength than that above mentioned and which can be manufactured at less cost.

With this general object in view the invention consists in certain novel and peculiar features of construction and combinations of parts, as hereinafter described and claimed, and in order that it may be fully understood

20 reference is to be had to the accompanying drawings, in which—

Figure 1 is a perspective view of the bit applied in operative position to a saddle-horse. Fig. 2 is an enlarged perspective view of the 25 bit to more clearly illustrate its construction

and the relation of its various parts.

In the manufacture of my bit malleable iron or steel is preferably employed in order that the elements or parts may be assembled easily and expeditiously and to enable an unskilled person—a trooper, for instance—to substitute a new element for a broken or defective one with but little trouble and loss of time.

Referring now to the drawings, 1 indicates the branches or side pieces of the bit, having their hook-shaped lower ends when the elements are assembled to form a bit bent to provide the substantially circular loops 2 and 40 provided at their rear sides near their lower

ends with rein-loops 3.

The upper ends of the branches are curved rearward, as at 4, and terminate in eyes 5, and between said eyes and loops 3 the 45 branches are provided with rearwardly-projecting perforated ears 6, the perforations extending transversely and in longitudinal alinement.

A skeleton yoke preferably comprises the 50 parallel sides 7 of inverted-arch form, connected by cylindrical end bars 8 and by crossbars 9, the latter being disposed apart a distance slightly exceeding the width of a rein, so as to provide a central third-rein loop 10.

55 11 indicates the curb-strap of the type shown or of any other suitable type, and at-

tached to said curb-strap, as shown or otherwise, are snap-hooks 12 or equivalent devices.

13 designates the snaffle-sections of the bit, the same being of conoidal form by prefer- 60 ence and terminating in reduced cylindrical hook portions at their ends, the outer hookterminals when the elements are assembled to form a bit being bent to form loops 14 and the inner terminals to form loops 15, one of 65 said loops 15 being disposed at right angles to the other and to loops 14. Each snaffle-section is provided near its outer end with a hole 16, extending parallel, or substantially so, with the axes of loops 14.

Substantially circular rings of heavy-gage steel wire are in the assemblage of the elements of the bit bent to form complete rings 17. To produce a bit from said elements or parts, the operator fits the end bars of the 75 yoke into the hook-terminals of the branches and then bends said terminals into complete loops 2. As thus united the yoke pivotally links the branches together and braces them. The inner terminals of the snaffle-sections 80 are then interlocked and bent to form complete loops and then the outer hook-terminals 14 are passed outwardly through the perforated ears of the branches and bent to form complete loops 14, the snaffle-sections 85 thus interlocked with each other and the branches forming the snaffle member of the bit. The substantially circular rings are then fitted through the holes 16 and then closed to complete them and stand substan- 90 tially vertical, and finally the snap-hooks are passed outwardly through the rings and interlocked with the eyes 5 and in conjunction with the branches and yoke form the curb member of the bit.

In practice the bit is attached to the bridle or a halter by looping the cheek-straps 18 and the ordinary reins 19 through the rings 17, as shown in Fig. 1, the double curb-rein 20 being attached to loops 3. If preferred, 100 the single curb-rein 21 (shown only in dotted lines, Fig. 1) may be employed in lieu of the reins 20 and will be engaged with loop 10 of the yoke. As these curb-reins are well known, the preferred type only is illustrated 105 in full lines, neither being claimed.

In Fig. 2 the bit is distorted—that is to say, the sections of the snaffle member or mouthpiece converge upwardly—this being a position which the bit may occupy because 110 of its jointed mouthpiece or snaffle section when not applied in operative position to a

horse. When the bit is fitted on a horse and is under no "pull" from the reins, it occupies substantially the position shown in Fig. 1, with the mouthpiece-sections in longitudinal 5 alinement or substantially so. When thus disposed, a pull upon the reins 19 effects the snaffle action—that is to say, causes the snaffle-sections to fulcrum on the "bars" of the lower jaw and their inner portions to swing 10 toward the opposite jaw—the result being the bars are pinched and the horse under ordinary conditions brought under control, and in this connection it will be noticed that the sections when thus angularly disposed form 15 an arch over the tongue to avoid as much pressure as possible on the tongue and also permit of the free circulation of the blood through such member.

The bit herein described and my patented 20 bit possess an advantage over other bits in that the pinching action is positively and reliably checked to prevent a careless, impatient, or heavy-handed rider from torturing his mount by pulling the reins too 25 hard. In the present case I avoid the possibility of excessive pinching action by preventing the mouthpiece from arching too much over the tongue—that is to say, the parts are so proportioned that the looped ex-30 tremities of the mouthpiece come into engagement with the inner sides of the branches when the snaffle-sections have assumed an angle of about eighty degrees to each other, (see dotted lines, Fig. 2,) which angle I have 35 ascertained by actual test permits the bars to be pinched sufficiently to ordinarily bring the horse under control. A bit possessing this qualification is quite humane in its action.

When the horse is so excited that he cannot be subdued under the snaffle action, the curb action is resorted to, which action is produced by pulling on the curb-rein 20 or 21, as the case may be. When such rein is 45 pulled, the branches fulcrum on the loops 14 and squeeze the lower jaw between the mouthpiece and the curb-strap, the mouthpiece because jointed bending or arching over the tongue, as hereinbefore explained. It 50 will thus be seen that my bit, in addition to the lever action of the other curb-bits, has the advantage of pinching the bars of the mouth and that because the mouthpiece is hinged in the middle the horse will feel more pain in the bars than in the chin-groove. As a result in an endeavor to avoid the greatest pain he will give or surrender to this pain—i. e., his head will follow the rider's hand. On the other hand, the action of any bit having curb ac-60 tion in which the preponderance of pain is produced in the chin-groove will naturally cause the horse to push his nose forward and bolt to avoid the pain in the chin-groove.

Thus it will be seen that the jointed mouth-

65 piece is an important factor of the curb mem-

ber of the bit, from the fact that it positively assures the desired and proper fulcrum in producing the lever or curb action—the desired fulcrum for the reason that the action is humane and calculated to preserve a nor- 70 mal mouth, the proper fulcrum for the reason that it positively assures the preponderance of pain on the bars of the lower jaw and a minimum of pain in the chin-groove. This bit, like the one patented October 25, 1904, 75 permits the rider to effect the snaffle action and the curb action separately or together.

It will be furthermore noted that the placing of the rings 17 inside the branches prevents abrasion of the horse's cheeks by the 80 branches when operated and that the freedom of the latter to swing laterally as well as back and forth prevents the horse grasping the branches in his mouth, as is frequently the case with bits in common use. These ad- 85 vantages are possessed by the bit covered in

my patent hereinbefore mentioned. It will be noticed that the present bit possesses one very important feature of advantage over my patented one in that the for- 90 ward swing of the lower portions of the branches is positively limited by the contact of the upper portions thereof with the loops 14 of the snaffle member, whereas in said patented structure the curb-rein is the only 95 check on said movement of the branches, and this when sufficiently slack will permit the branches to swing until the yoke rests upon the horse's nose. If desired, the rider can manipulate both reins simultaneously to se- 100 cure and retain more perfect control of his mount, as with the aforesaid patented bit.

From the above description it will be apparent that I have produced a bit possessing in addition to the features of advantage 105 named as desirable the feature of limiting the approach toward parallelism of the snafflesections and the distance which the lower ends of the branch may swing forward, and while I have illustrated and described the 110 preferred embodiment of the invention it is to be understood that I reserve the right to make such changes as shall not be a departure from its essential spirit and scope or sacrifice any of its advantages.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

115

1. A bridle-bit, comprising side pieces or branches, a curb-strap connecting the upper 120 ends of said side pieces or branches, and a connection between the lower ends of said side pieces or branches, in combination with a snaffle member having a universal-joint connection at its ends with the side pieces or 125 branches and intersecting the plane of swinging motion of the latter for the purpose of limiting forward movement of the lower portion of said side pieces or branches.

2. A bridle-bit, comprising a pair of side 132

pieces or branches having rearwardly-projecting perforated ears, and a snaffle member having its outer ends terminating in loops which loosely interlock with said perforated 5 ears.

3. A bridle-bit, comprising a pair of side pieces or branches having rearwardly-projecting perforated ears, and a snaffle member comprising a pair of sections terminating at their inner ends in loosely-interlocked loops and at their outer ends in loops loosely interlocked with the perforated ears of the side pieces or branches and adapted to positively limit forward swinging movement of the lower portions of said side pieces or branches.

4. A bridle-bit, comprising a pair of side pieces or branches having rearwardly-projecting ears, a snaffle member, comprising a pair of sections terminating at their inner ends in loosely-interlocked loops and at their outer ends in loops loosely interlocked with the perforated ears of the side pieces or branches and adapted to positively limit forward swinging movement of the lower portions of said side pieces or branches, and rings extending through the snaffle-sections.

5. A bridle-bit, comprising a pair of side pieces or branches having rearwardly-projecting ears, a snaffle member, comprising a pair of sections terminating at their inner ends in loosely-interlocked loops and at their outer ends in loops loosely interlocked with the perforated ears of the side pieces or branches and adapted to positively limit for-

ward swinging movement of the lower portions of said side pieces or branches, rings extending through the snaffle-sections, and a curb-strap connection attached to the upper ends of said side pieces or branches and ex-40

tending through said rings.

6. A bridle-bit, consisting of a pair of side pieces or branches, a yoke pivotally connecting the lower ends of the side pieces or branches, a curb-strap connecting the upper 45 ends of the side pieces or branches, and a snaffle member having a universal-joint connection at its ends with the side pieces or branches and intersecting the path of movement of the latter to limit the forward swing 50 of their layren participants.

of their lower portions.

7. A bridle-bit, comprising a pair of side pieces or branches having their upper ends curved rearward and terminating in eyes, and their lower ends terminating in loops and 55 having other loops projecting rearwardly, above their lower ends, a yoke pivotally connecting the lower loops of said side pieces or branches, a curb-strap interlocked with the eyes of said side pieces or branches, a snaffle 60 member having universal-joint connections at its ends with said side pieces or branches below and forward of their eyes, and rings extending through said snaffle member.

In testimony whereof I affix my signature 65

in the presence of two witnesses.

HERMANN A. SIEVERT.

Witnesses

H. C. Rodgers,

G. Y. THORPE.