

G. JOHNSTON.
 COMBINED CURB AND SNAFFLE BIT.
 APPLICATION FILED APR. 9, 1908.

1,014,881.

Patented Jan. 16, 1912.

Fig. 1.

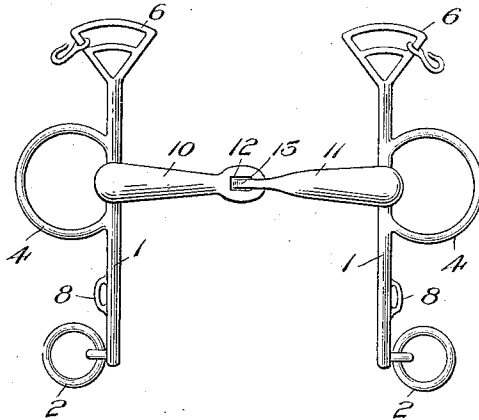


Fig. 2.

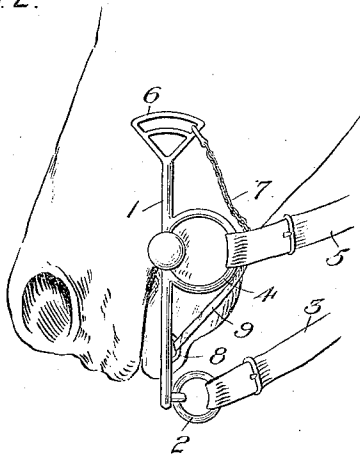


Fig. 3.

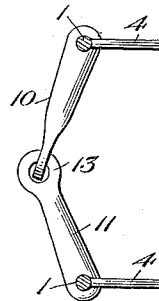


Fig. 4.

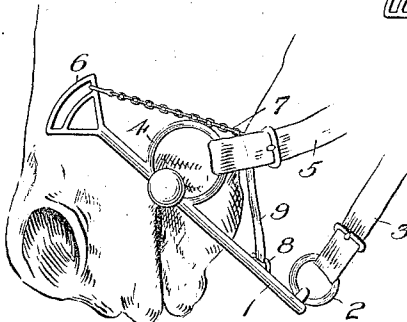
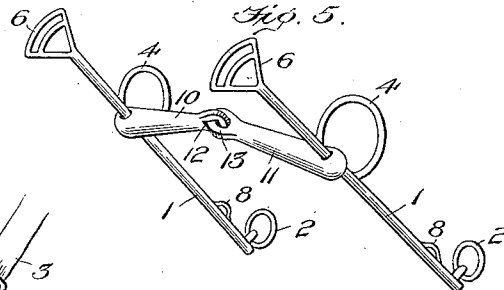


Fig. 5.



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GORDON JOHNSTON, OF FORT RILEY, KANSAS.

COMBINED CURB AND SNAFFLE BIT.

1,014,881.

Specification of Letters Patent.

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Application filed April 9, 1908. Serial No. 426,097.

To all whom it may concern:

Be it known that I, GORDON JOHNSTON, a citizen of the United States, residing at Fort Riley, in the State of Kansas, have invented
5 new and useful Improvements in Combined Curb and Snaffle Bits, of which the following is a specification.

My invention relates to an improvement in bits which will combine the separate
10 actions of curb and snaffle bits in a simplified structure and in a manner calculated to give the rider the requisite control of his horse under all conditions, and cause the bit to act with such free play under snaffle action as to
15 give what is termed a light mouth in contradistinction to a mouth which remains closed with the accompanying tendency to lean on the bit, and under curb action to set itself rigidly for bearing down on the bars of the
20 horse's mouth while yet yielding readily to any relaxation of the tension on the reins and providing always ample space under the bit for the horse's tongue.

My improved bit comprises a single
25 mouth-piece consisting of two centrally joined sections connected to side bars having rings for snaffle and curb reins and carrying the usual curb chain and lip strap.

The chief feature of my invention lies in
30 the fact that I obtain both a snaffle and curb action from a single jointed mouth-piece which is formed by two sections having a novel form of loose joint so that it will break readily and freely against a pull by the
35 snaffle reins, thereby giving a perfect snaffle action, but which, when turned in the horse's mouth, as the pull is transferred to the curb reins, will become rigid and, through the coöperation of the curb chain,
40 will bear down upon the bars of the horse's mouth giving a downward and powerful curbing action. In fact the two actions thus obtained are the same as those of the two mouth-pieces of the bit and bridoon. Further, by my improved manner of jointing the
45 sections of the mouth-piece together, sufficient play is provided to cause these sections, in assuming a rigid or locked position against the pull of the curb reins, to cock or
50 stand at angles to each other, thereby providing a suitable space for the tongue corresponding to the upward curve in the solid curb bars in general use, which keeps the horse's tongue under the bit.

55 These and other features of importance constitute the subject matter of my inven-

tion, all of which are hereinafter more fully explained and are illustrated in the accompanying drawings which form a part of this specification, and in which:—

Figure 1 is a front view of the bit with the side bars turned outwardly to show their construction. Fig. 2 shows the position of the side bars, and Fig. 3 the position of the sections of the mouth-piece when the snaffle
60 action of the bit is used. Figs. 4 and 5 are views corresponding to Figs. 2 and 3, respectively, and illustrate the different positions assumed by the bit when delivering its
65 curbing action, the sections of the mouth-piece being locked so that they act like a solid mouth piece on the bars of the horse's mouth when under tension from the curb
70 reins.

Similar reference numerals refer to similar parts throughout the drawings.

According to the drawings the bit is provided with the side bars 1 which are of ordinary construction having upper and lower
75 branches in one piece with rings 2 to receive the curb reins 3; rings 4 to receive the snaffle reins 5, upper loops 6 to receive the curb chain 7, and lower loops 8 to receive the lip strap 9. The sections 10 and 11 of the
80 mouth-piece may be solidly or pivotally connected to the side bars intermediate the ends of the latter and opposite the snaffle rings 4. The section 10 is flattened at its inner end and provided with an elongated slot or eye
85 12 which has its upper and lower walls in parallelism and which is adapted to receive a loop or ring 13 forming the enlarged inner end of the section 11 of the mouth-piece. The loop 13 on the section 11 stands in a
90 plane with the line of pull from the snaffle reins 5, while the slotted end of section 10 stands at right angles to said plane and fits loosely in the eye 13 to permit a definite
95 play for the purposes hereinafter described. From this construction it will be seen that the two sections of the mouth-piece will
100 break easily and freely in the plane of the pull of the snaffle reins, thereby giving a perfect snaffle action. Obviously, however, as the pull is applied from the curb reins,
105 the mouth-piece will turn in the horse's mouth revolving on its own axis through an angle (proportioned to the slack or play in the curb chain when adjusted) of between
110 45° and 90°, as may be seen by a comparison of Figs. 2 and 4. As the mouth-piece revolves on its axis, it will be evident that the

plane of the pull of the curb rein will stand at a corresponding angle to the breaking plane of the sections of the mouth-piece and the latter therefore, instead of breaking
 5 freely in response to the pull, will, after the play allowed in the joint has been taken up, assume a rigid or locked position as in Fig. 5 and will function as if the mouth-piece were solid, except that in assuming this rigid
 10 position the mouth-piece will yield to an upward pressure from the horse's tongue which will insure the sections thereof cocking sufficiently to provide ample space for the tongue under the mouth-piece and avoid
 15 the very serious disadvantage of pressing down on the tongue or forcing the tongue from under the bit. When the pull is on the curb reins and the curb chain has been drawn taut against the under side of the
 20 jaw, the mouth-piece, assuming its locked position as in Fig. 5, will bear down with great power upon the bars or gums of the mouth of the horse, giving the necessary control and acting in identically the same man-
 25 ner as the solid curb bit portions of the bit and bridoon.

It will be noted that as the sections 10 and 11 of the bit are rotated from the snaffle to the curb position, they will have a tendency
 30 to cock slightly as a result of the play provided in the joint, this will cause the mouth-piece, in its rigid position, to slightly arch or be elevated at the center so as to give the proper and desired room for the tongue of
 35 the horse. But for this locking, the mouth-piece under curb action would simply pinch together and bring the pressure more on the lip and outside of the lower jaw, which is objectionable, also where a hinge joint connect-
 40 ing the mouth-piece is constructed to permit play only in the plane of snaffle action, this turning of the mouth-piece would force the joint outwardly and downwardly so that it would press upon the
 45 tongue instead of arching up, (see Fig. 5) to provide the predetermined space necessary for the tongue of the horse.

The lip strap 9 passes through a link of the curb chain 7 or some attachment on a
 50 strap, thus preventing the horse from taking the lower branch in his lips or teeth. The bit here specified offers the action of snaffle and curb bit, or bit and bridoon. When the snaffle reins are under tension the
 55 mouth-piece is flexible and soft, the pressure being distributed over tongue, bar and lips, and so a horse may be guided, supported when stumbling or landing over a jump, and he may lean upon it when extended as in
 60 racing with as much comfort as is possible. To collect or control a horse the curb reins are brought into play, and in the case of the bit, the mouth-piece becomes rigid and space is allowed for the tongue, and so the pres-
 65 sure (with leverage) falls on the bars of a

horse's mouth, the most sensitive part in it. The moment, however, the lower jaw yields or the tension on the reins is relaxed, the pressure is removed and the bit becomes soft, which flexibility is one of the most im-
 70 portant features.

I do not desire to be limited to the particular manner of joining the bit sections inasmuch as the gist of my invention lies in the provision of such a joining means as
 75 will coöperate with the rotation of the bit produced by transferring the pull from the snaffle to the curb reins and enable a single jointed mouth-piece to serve with equal effectiveness as a freely breaking snaffle or a
 80 rigid curb bit.

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

1. A bit comprising side bars, a mouth-
 85 piece connecting said bars, said mouth-piece comprising two sections, means integral with the mouth piece sections which interlock and join said sections together to provide a free
 90 play in one plane and a predetermined limited play in planes at angles to said first plane, and means for the connection of curb reins and chain to said bit, substantially as described.

2. A combined snaffle and curb bit com-
 95 prising a single mouth-piece formed of two sections, and a joint connecting said sections and formed of interlocking parts integral with said sections which permit free play
 100 of the mouth piece in one plane and have portions which engage after a predetermined limited cocking thereof in other planes at angles to said plane of free play and prevent further flexing in such other
 105 planes, and means for the operative connection with said bit of curb reins, snaffle reins, and a curb chain, said snaffle reins being connected with their plane of pull in
 110 said plane of free play, substantially as described.

3. A combined curb and snaffle bit comprising side bars having curb loops at the lower ends, snaffle loops at intermediate points, and loops for the curb chain at the
 115 top, a mouth-piece formed in two sections connected to the side bars, means to flexibly join said mouth-piece sections together comprising a pair of interlocking loops in planes at right angles to each other, and shoulders
 120 on one of said loops which engage a portion of the other loop and lock the mouth-piece against free play except in the plane of pull of the snaffle reins, said shoulder and portion engaging after a limited play or
 125 flexing of the mouth-piece in planes at angles to the plane of pull of the snaffle rein.

4. A combined snaffle and curb bit comprising a single mouth-piece formed of sections, one section having an eye and the
 130 other section a loop member formed integral

therewith, side bars connected to said mouth-piece and provided with connections for curb reins, snaffle reins and a curb chain, said eye being disposed substantially at right angles to the plane of pull of the snaffle reins, and having opposing surfaces between which the loop, when moving in the plane of pull of the snaffle reins, works freely and which are spaced to engage and lock the loop, when it has swung through a predetermined angle in other planes under tension from the curb reins, to lock the bit sections in angular relationship under curbing action.

5. A bit of the character described comprising a sectional mouth-piece formed by jointed sections, one section having an integral loop member and the other section provided with an integral eye member through which the loop passes, said eye having portions which engage the loop, when it tends to move in a plane at an angle to the plane of the loop itself, thereby rigidly setting and locking the mouth-piece sections at a predetermined angle, and means to connect reins to the outer ends of the bit sections, substantially as described.

6. A combined snaffle and curb bit com-

prising side bars, a sectional mouth-piece connected to said bars, the sections of which mouth piece are connected by a joint formed of a loop integral with one section and an eye integral with the other section disposed in a plane at right angles to the plane of the loop and standing under snaffle action at right angles to the plane of pull of the snaffle reins, and said eye permitting the loop to have free play therethrough in said plane of pull and having its upper and lower sides, between which the loop moves, spaced to receive said loop and permit the joint only a predetermined limited cocking play in planes in which said sections tend to flex when the pull thereon is applied from the lower ends of said side bars and means to connect curb reins, snaffle reins and a curb chain to said bars, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GORDON JOHNSTON.

Witnesses:

EDWIN L. BRADFORD,
JAMES T. HUNTER.