2 Sheets—Sheet 1.

W. S. MITCHELL.

Bridle-Bits.

No. 209,911. Patented Nov. 12, 1878.

Fig. 1.

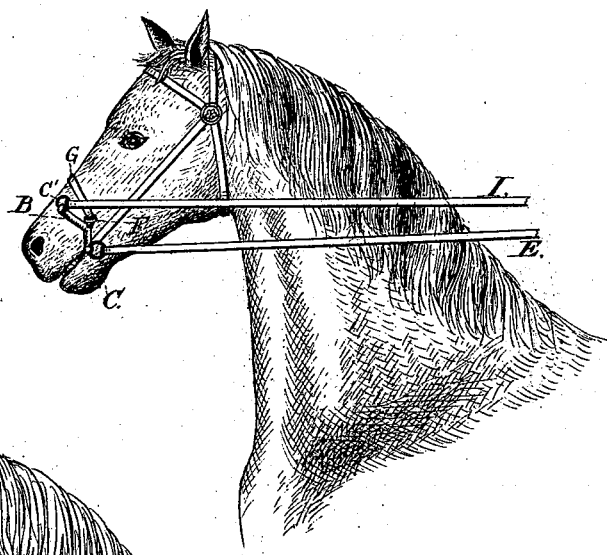


Fig. 3.

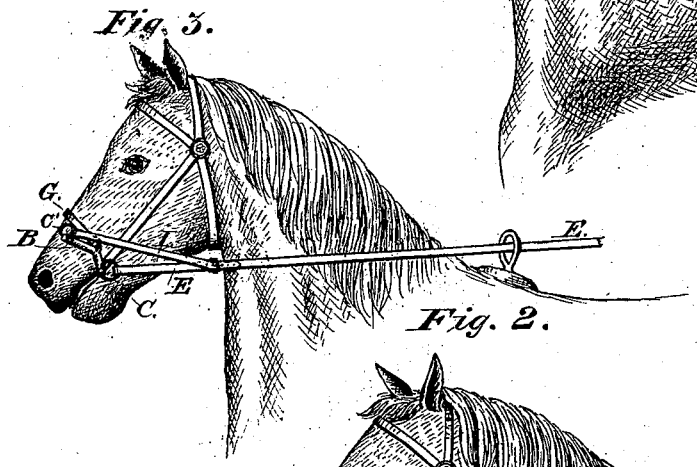
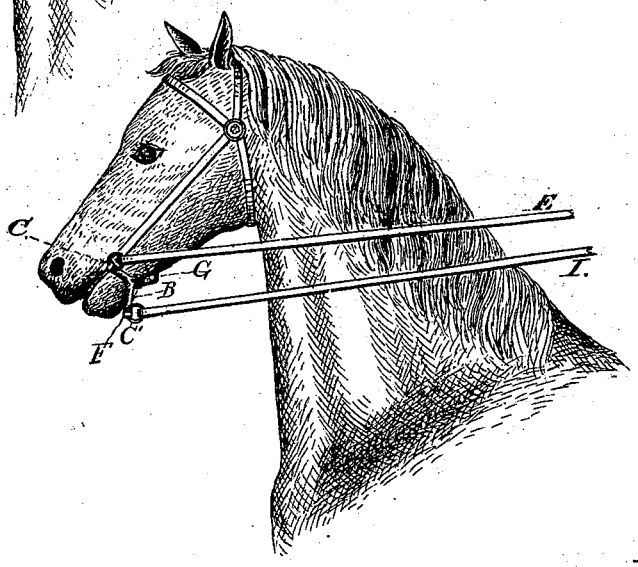


Fig. 2.



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Inventor:
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By James L. Norris.
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2 Sheets—Sheet 2.

W. S. MITCHELL.

Bridle-Bits.

No. 209,911. **Patented Nov. 12, 1878.**

Fig. 4.

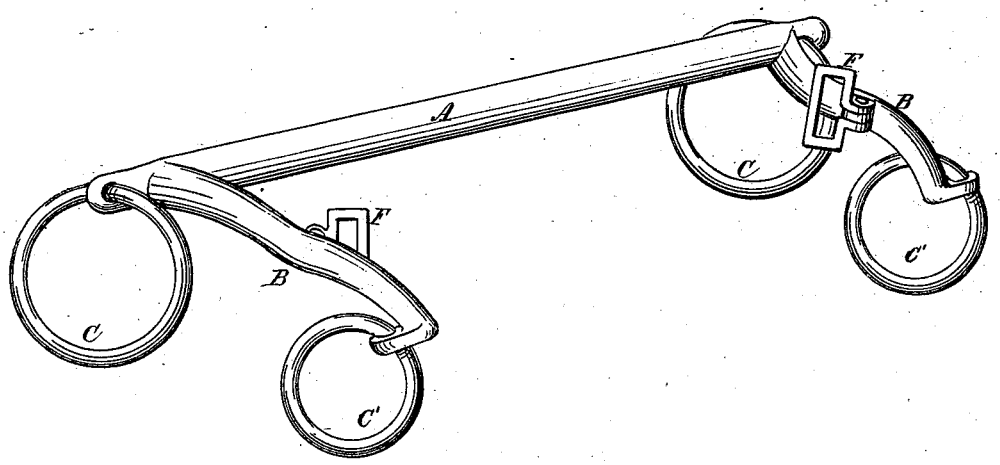
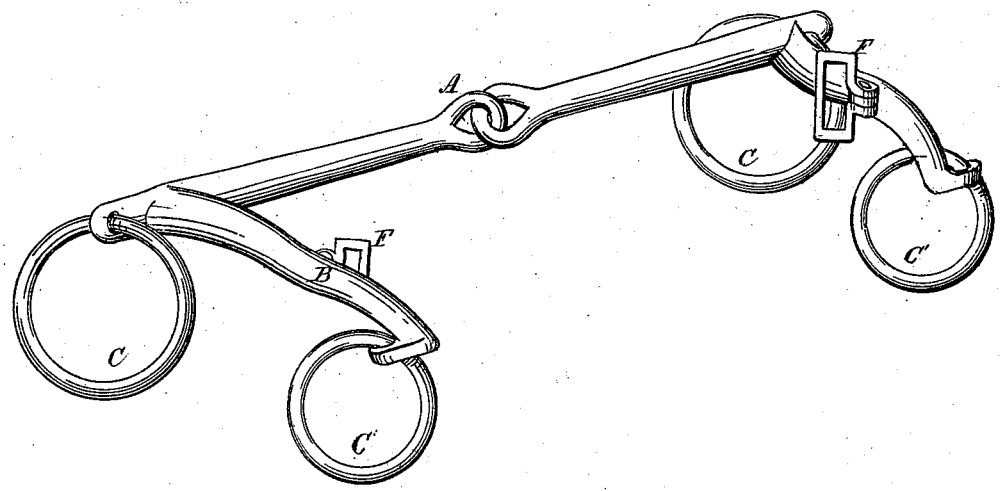


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM S. MITCHELL, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN BRIDLE-BITS.

Specification forming part of Letters Patent No. **209,911**, dated November 12, 1878; application filed November 2, 1878.

To all whom it may concern:

Be it known that I, WILLIAM S. MITCHELL, of Washington, in the District of Columbia, have invented certain new and useful Improvements in Bridle-Bits, of which the following is a specification:

This invention relates to certain improvements in bridle-bits; and it has for its object to provide a reversible bit by means of which the proper pressure may be brought to bear upon the mouth of the animal irrespective of the position of its head, whereby it can always be kept perfectly under the control of the driver.

The well-known curb-bit has its fulcrum in the mouth of the animal, and is so constructed that when the reins are drawn upon pressure will be brought to bear upon the roof of the mouth, if the animal's head is in its natural position. The animal has it in its power, however, to relieve its mouth of such pressure by lowering its head until the lower jaw rests upon its breast or throat, in which position the levers of the bit assume, with the check-rein, a straight or approximately a straight line, in which position there is little or no leverage to be obtained, and the control of the animal is lost.

My invention is designed to obviate these objections and provide a bit the fulcrum of which may be brought over the nose or under the lower jaw of the animal, whereby the proper pressure may be brought to bear upon the upper or lower jaw inside the mouth of the animal, irrespective of the position of its head—that is, that it may exert pressure upon the upper or lower jaw, as desired.

To this end my invention consists of a mouth-piece consisting of a bar of metal or other suitable material, which may be in one piece, or formed in two bars jointed in the middle, as in the ordinary snaffle-bit, the bar or bars being provided with cheek-pieces or levers at right angles thereto, with means at their ends for the attachment of check-reins, and having between said ends and the mouth-piece loops for the attachment of a strap to be brought over the nose or under the lower jaw of the animal, according to the position in which the bit is to be employed, the bit having rings at the ends of the mouth-pieces and cheek-pieces, by means of which the reins are attached, as more fully hereinafter explained.

In the drawing, Figure 1 represents a view showing the head of the animal with the bit in position, showing the fulcrum upon the animal's nose. Fig. 2 is a similar view, showing the bit reversed. Fig. 3 shows my improved bit as used for driving purposes. Fig. 4 is a detached perspective view of the bit, and Fig. 5 illustrates my invention as applied to a snaffle-bit.

The letter A represents the mouth-piece of the bit, which consists of a metallic bar, which may be either in one piece or in two pieces jointed in the middle, as in the ordinary snaffle-bit. The mouth-piece is provided at each end with the cheek-pieces B, and with rings C, to which the driving-rein E is secured, and the cheek-pieces at their ends are provided with similar rings C′ for the check-rein I.

The letter F represents two loops swiveled to the cheek-pieces, to which are attached the ends of a strap, G, which forms the fulcrum of the bit, and may be arranged upon the animal's nose or under the lower jaw, according to the position of the bit.

In use the mouth-piece B is placed in the mouth of the animal, the cheek-pieces being elevated or depressed, so that the strap G embraces either the nose or lower jaw of the animal, as may be desired, the said strap G being passed over the nose or under the lower jaw, according to the position in which the bit may be secured; and if it is desired to produce pressure by the bit upon the animal's upper jaw, the cheek-pieces are turned upward, so as to bring the strap G over the nose, while to act on the lower jaw the cheek-pieces are turned downward.

Upon pulling upon the check-rein, pressure will be brought to bear upon the mouth of the animal, no matter to what position it may bring its head, thus keeping it always under the control of the driver or rider, as the proper amount of leverage can always be brought upon the bit.

When the bit is used in the position shown in Fig. 1, and the check-rein I drawn upon, the strap G becomes the fulcrum upon which the bit turns, and the mouth-piece A is thrown

upward against the upper jaw, the upper jaw and nose being thus compressed between the mouth-piece and the strap.

When the bit is used as shown in Fig. 2, the cheek-pieces or levers extend downward and the strap G passes under the lower jaw. Drawing of the check-rein throws the mouth-piece downward, and causes the lower jaw to be compressed between the said mouth-piece and the strap.

In Fig. 3 the check-rein I is simply a short strap attached to the free end of the cheek-piece, and secured to the driving-rein E by a buckle. When the driving-rein is drawn tight the horse is compelled to hold his head up, as the attempt to throw it down would cause a compression of his upper jaw.

As will be perceived, my improved bit may be used without a headstall, as the strap G is sufficient, in connection with the reins, to hold it in position in the animal's mouth.

What I claim is—

1. The combination, in a reversible bit, of a mouth-piece provided with cheek-pieces having end rings for check-reins and a strap secured to said cheek-pieces between the end rings and mouth-piece, and adapted to be brought over the animal's nose or under its lower jaw, said strap forming the fulcrum of the bit, whereby the mouth-piece and cheek-pieces are converted into a lever, by which the requisite pressure can be maintained upon either the upper or lower jaw of the animal, irrespective of the position of its head, in order to give the driver complete control, substantially as described.

2. In combination with the mouth-piece, constructed in one or more parts, the cheek-pieces having end rings for check-reins, and provided with an adjustable strap intermediate of the end rings and mouth-piece, and adapted to be brought over the nose or under the lower jaw of the animal and the rings attached to the end of said mouth-piece for the guiding-reins, substantially as described.

3. The combination, with the cheek-pieces B of a bit, of the swiveling loops F, and strap G, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

WM. S. MITCHELL.

Witnesses:
JAMES L. NORRIS,
JAS. A. RUTHERFORD.