

(No Model.)

W. H. SMITH & S. D. FREEMAN.
BRIDLE BIT.

No. 511,811.

Patented Jan. 2, 1894.

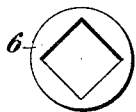


Fig. 4,

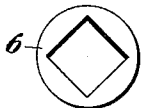


Fig. 5,

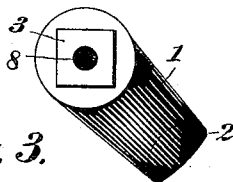


Fig. 3.

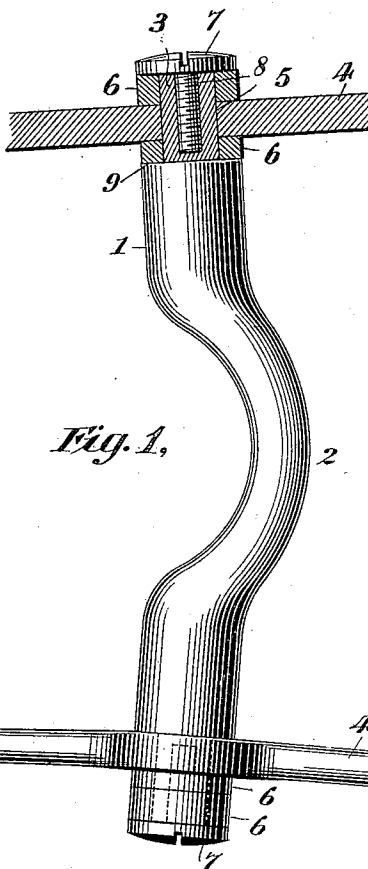


Fig. 1,

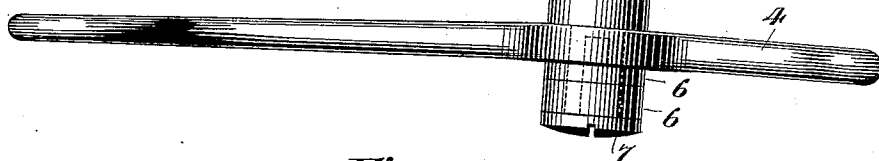
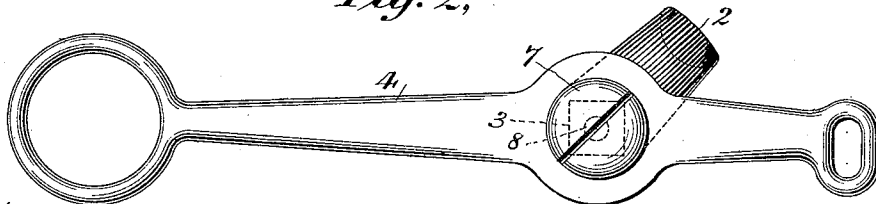


Fig. 2,



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM H. SMITH AND SAMUEL D. FREEMAN, OF THE UNITED STATES ARMY.

BRIDLE-BIT.

SPECIFICATION forming part of Letters Patent No. 511,811, dated January 2, 1894.

Application filed April 18, 1893. Serial No. 470,886. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. SMITH and SAMUEL D. FREEMAN, of the United States Army, residing at Fort Custer, county of Custer, and State of Montana, have invented certain new and useful Improvements in Bridle-Bits, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Our invention relates to a bridle-bit for horses and the invention seeks to provide a bit which may be adjusted in width to fit the varying widths or sizes of the mouths of horses.

To these ends our invention consists in the various novel and peculiar arrangements and combinations of the several parts of the device, all as hereinafter fully described and then pointed out in the claims.

[A type of our invention is illustrated in the accompanying drawings, wherein—

Figure 1, is a side view of our improved bit with one end thereof partly in section on a central vertical axis and with the cheek-piece at such end broken away. Fig. 2, is an end view of the same. Fig. 3, is an end view of the mouth-piece with the cheek-piece, washer rings, and fastening-devices therefor removed. Figs. 4 and 5, show each a side and edge view respectively of the interchangeable washer-rings for holding the cheek-pieces in adjustment.

Referring to the drawings, in which like numbers of reference indicate like parts throughout, 1 designates the mouth-piece of the bit which is bent slightly out of a right line and is formed at its center of length with a curved bend or port 2. At each end the mouth-piece is formed with a reduced portion or shank 3, which is of sufficient length to afford the required range of adjustment of the cheek-piece 4, which is mounted thereon by means of an eye 5, formed in the cheek-piece and shaped in conformity with the shank over which it snugly fits. The shank 3, is made rectangular or square in cross section so that the cheek-piece cannot be turned or rotated thereon, though it may be readily adjusted lengthwise of the same or in the direction of the axis of the mouth-piece. Instead of the

shank or reduced end 3 being rectangular in cross-section, it may obviously be of any other suitable shape which will serve the purpose of preventing rotary movement of the cheek-piece thereon at the same time permitting the cheek-piece to be moved along the shank to any point of its length and as this same function can be accomplished by other means which will readily suggest themselves, it is to be understood that the invention is not limited to this particular construction which we have here illustrated on account of its simplicity and durability. The cheek-piece 4, is held in the position to which it may be adjusted along the shank or end portion 3, by means of one or more washers 6, 6, which together with the cheek-piece are fastened securely in place by means of a fastening-device 7, consisting in a flat-headed screw, the stem of which takes into a screw-threaded socket 8, which is formed in the end of the shank. The head of screw 7, is made sufficiently large to project beyond the sides of the shank in order to engage the outer face of the washer 6, and bind the same together with the cheek-piece and the second washer, in between the screw-head and the shoulder 9, on the mouth-piece. The washer-rings 6, are each formed with an opening shaped in accordance with the form of the shank so that they may be slid along the shank without turning thereon, and they are preferably made of substantially the same diameter as the mouth-piece, of which they virtually constitute a part. The thickness of the washers may vary slightly as indicated in the drawings in order to better graduate the adjustment of the cheek-piece on the shank.

The manner of adjusting the bit will now be readily understood. Let it be supposed that both the cheek-pieces are at the innermost limit of adjustment, in which case the cheek-piece will abut against the shoulder 9, as shown at the lower part of Fig. 1. If now, it be desired to increase the space between the mouth-pieces, for instance, as much as the width of one of the washers, this may readily be done by removing the screw 7, from one end and taking off the washers and then the cheek-piece, after which one of the washers is replaced so as to lie against the shoulder 9, then the cheek-piece is mounted in position with

thesecond washer placed to the outside thereof and finally the screw 7, is inserted and screwed down tightly so that the parts stand related as shown in section at the upper part of Fig. 1. If
 5 a greater adjustment than this is to be made one of the washers at the other end of the bit may be changed from the outside of the cheek-piece to the inside thereof as just described, it being manifestly preferable in all cases to
 10 make a similar adjustment of each of the cheek-pieces, though, of course, the adjustment may be effected from one end alone. The greatest limit of adjustment is obtained when all of the washers at each end are trans-
 15 posed from the outside of the cheek-pieces to the inside thereof.

Having thus described our improvements in bridle-bits, what we claim, and desire to secure by Letters Patent, is—

- 20 1. In a bridle-bit, the combination of a mouth-piece and a cheek-piece mounted upon the end thereof and adjustable along the axis of said mouth-piece whereby the bit may be enlarged or contracted, one or more inter-

changeable washers adapted to be changed 25 from one side of said cheek-piece to the other for holding the same in adjusted position and means for securing said parts together.

2. In a bridle-bit, the combination of a mouth-piece formed with a reduced end angular in cross-section and a cheek-piece provided with an eye adapted to fit upon the said reduced end of the mouth-piece so as to prevent rotary movement thereon but at the same time permitting adjustment of the cheek-
 30 piece along the axis thereof, one or more detachable washer-rings each formed with an eye adapted to fit upon the said reduced end of the mouth-piece, and a fastening-device, for securing the parts together. 40

In testimony whereof we have hereunto set our hands, this 10th day of April, 1893, in the presence of the two subscribing witnesses.

WILLIAM H. SMITH.

SAMUEL D. FREEMAN.

Witnesses:

HENRY C. KLEUCK,
 S. W. HAGERMAN.