(No Model.) 2 Sheets—Sheet 1.

C. E. HEINZE.

BRIDLE BIT.

No. 481,172. Patented Aug. 23, 1892.

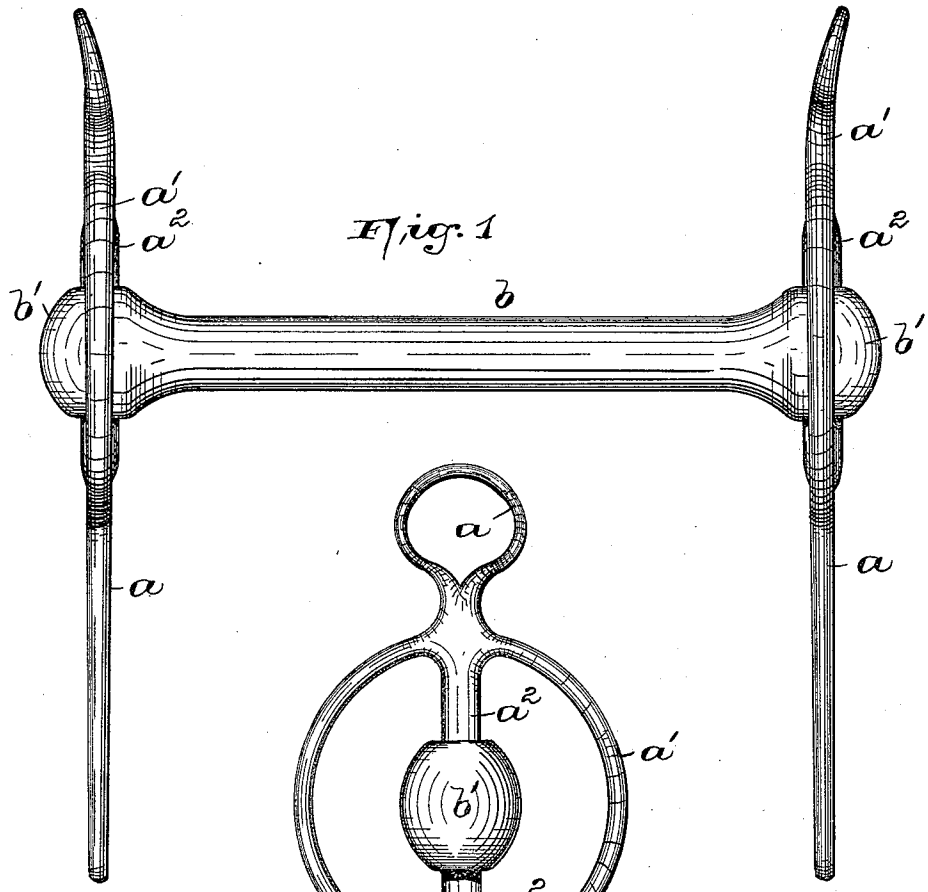

Fig. 1

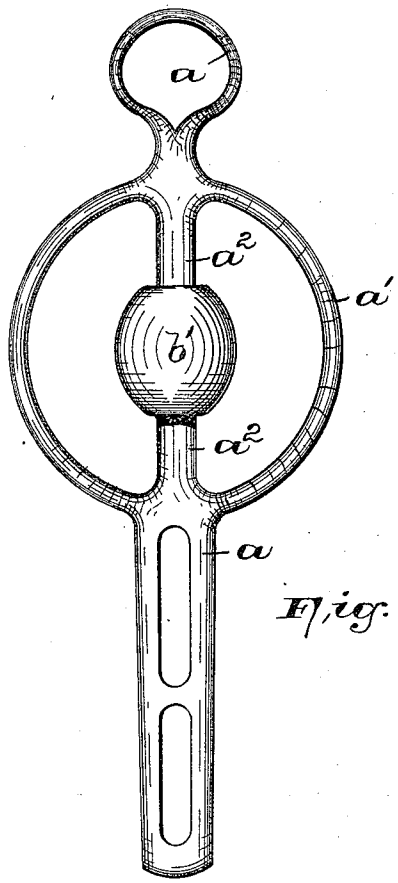

Fig. 2

WITNESSES:

Fred'k C. Graentzel.

Wm. H. Canfield, Jr.

INVENTOR:

Charles E. Heinze,

BY Church B. Jackson, ATT'Y.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

C. E. HEINZE.

BRIDLE BIT.

No. 481,172. Patented Aug. 23, 1892.

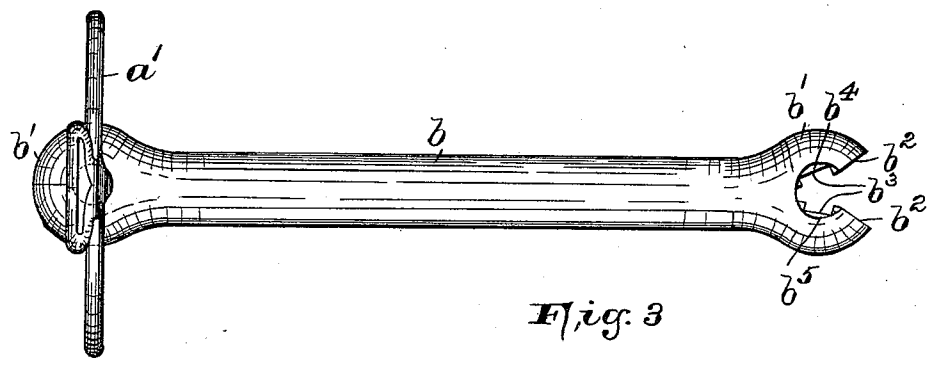

Fig. 3

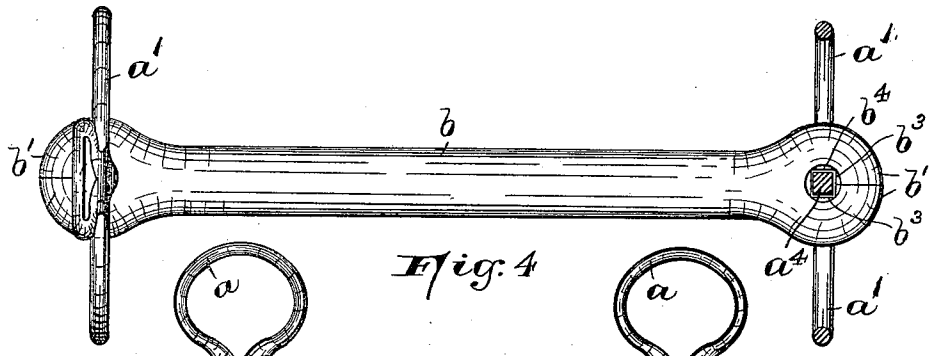

Fig. 4

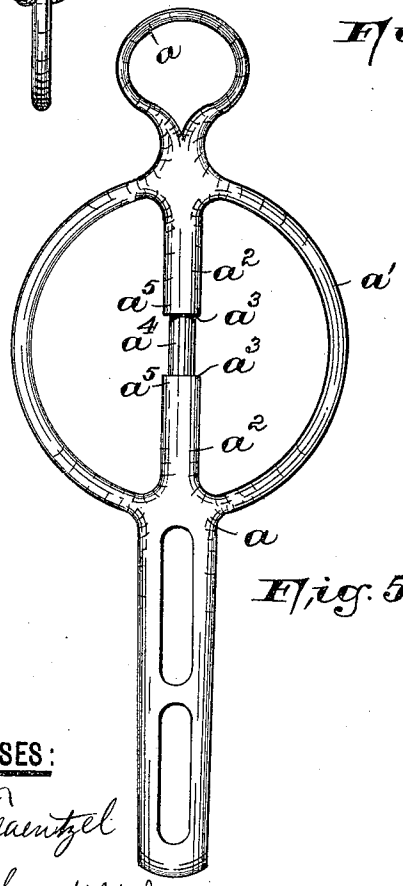

Fig. 5

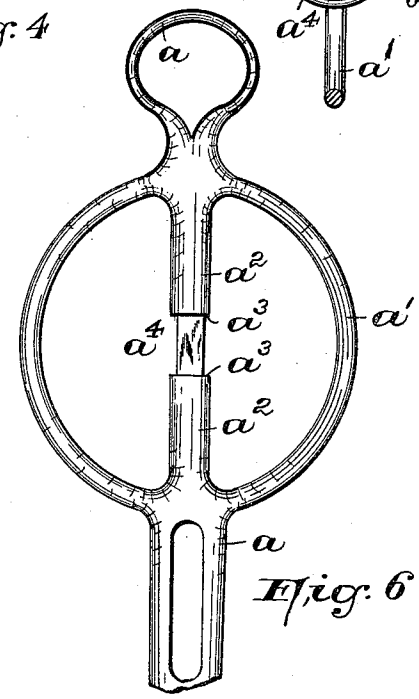

Fig. 6

WITNESSES:

Fred'k Gruentzel

Wm. H. Canfield, Jr.

INVENTOR:

Charles E. Heinze,

BY Schuyler B. Jackson ATT'Y.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES E. HEINZE, OF NEWARK, NEW JERSEY.

BRIDLE-BIT.

SPECIFICATION forming part of Letters Patent No. 481,172, dated August 23, 1892.

Application filed April 22, 1892. Serial No. 430,272. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. HEINZE, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Bridle-Bits; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to secure a bridle-bit of increased strength and one of great ornamental effect, and also to reduce the cost of manufacture.

The invention therefore consists in the improved bridle-bit having the arrangements and combinations of parts such as will be hereinafter more fully set forth, and finally embodied in the clauses of the claim.

In the accompanying drawings, Figure 1 is a front view, and Fig. 2 a side elevation, of a bit embodying my improvements. Fig. 3 is a top view of a mouthpiece used in connection with my improved form of bit, one end of said mouthpiece being represented open or apart for the reception of a mouthpiece-bar on the cheek-pieces. Fig. 4 is a similar view of said mouthpiece, one of the cheek-pieces being represented in cross-section to clearly illustrate the arrangement of the end of the mouthpiece about said mouthpiece-bar after said end has been closed up. Figs. 5 and 6 are side views of cheek-pieces used in connection with my improved bridle-bit, one being represented with a cylindrical mouthpiece-bar and the other with a square mouthpiece-bar.

Similar letters of reference are employed in the above-described views to indicate corresponding parts.

In said drawings, a indicates the cheek-piece of the bit, provided with a rein-ring a' and a mouthpiece-bar a^2, which parts may be cast or forged or otherwise formed in one integral piece of iron or other suitable metal to secure greater strength in comparison with cheek-pieces in which said parts are in two or more pieces secured together. As will be seen more especially from Figs. 5 and 6, said mouthpiece-bars a^2 are provided with the offsets a^3 to form a holding portion a^4, which may be cylindrical, as in Fig. 5, or may be square in cross-section, as in Figs. 4 and 6.

The mouthpiece b is provided at its opposite ends with ball-shaped jaws b', into which the narrow portion a^4 on the mouthpiece-bar is placed, and said jaws b' are then firmly closed down and around said portion a^4 and their flat surfaces b^2 swaged together so as to show no joint. Each jaw b' is provided on its inner surface with outwardly-projecting ribs b^3, which when said jaws are closed down fit in position around said portions a^4 of the mouthpiece-bar and their flat surfaces b^4 come in contact with the shoulders or offsets a^3. At the same time the portions b^5, directly above and below said ribs b^3, fit closely around the adjacent and cylindrical portions a^5 of the mouthpiece-bar. It will thus be seen that when said jaws b' are firmly closed down the shoulders a^3 will prevent any lateral movement of the mouthpiece on its bar a^2, but still allowing a reasonable perpendicular sliding movement of the jaws between the shoulders.

As has been stated and as shown in Figs. 5 and 6, the portion a^4 of the mouthpiece-bar may be of any desirable cross-section, and in order to prevent any side movement of the cheek-pieces I prefer to use such portion which is preferably square in cross-section, and whereby when the jaws b' are closed around the mouthpiece-bar the straight projecting portions b^3 will closely hug the flat sides of the portion a^4. Of course it will be evident that the jaws b' may be provided with recesses for the reception of projections formed on the bars a^2, which will answer the same purpose as the construction shown in the drawings.

Aside from the ornamental effect and the reduced cost of manufacture, I have obtained a great advantage in that in my improved form of bridle-bit the connecting portions of the jaws b' of the mouthpiece are made to fit closely around the cylindrical mouthpiece-bar, and as there are no sharp projecting

edges there can be no injury to the mouth of the horse and there is no liability of making the tongue sore.

My improvement can be used on any style of bit, as will be evident.

Having thus described my invention, what I claim is—

1. In a bridle-bit, the combination, with a mouthpiece having jaws b' and ribs b^3, of a cheek-piece and a mouthpiece-bar a^2, provided with a narrower portion a^4, forming shoulders or offsets a^3, and said jaws on said mouthpiece being closed down about said narrower portion a^4, and said shoulders or offsets a^3 engaging with the flat surfaces b^4 of said ribs b^3, all of said parts being arranged and combined substantially as and for the purposes set forth.

2. In a bridle-bit, the combination, with a mouthpiece having jaws b' and ribs b^3, said ribs being adapted when said jaws are closed down upon each other to form an open square and a circular recessed portion b^5 on each side of said square, of a cheek-piece and a mouthpiece-bar a^2, provided with a narrower portion a^4, which is square in cross-section, forming shoulders or offsets a^3, and said jaws on said mouthpiece being closed down about said narrower portion a^4, and said shoulders or offsets a^3 engaging with the flat surfaces b^4 of said ribs b^3, and said circular recesses b^5 encircling the portions of the mouthpiece-bar a^2 adjacent to said narrower portion a^4, all of said parts being arranged and combined substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 15th day of March, 1892.

CHARLES E. HEINZE.

Witnesses:
SCHUYLER B. JACKSON,
HARRY C. MOORE.