J. THORNTON.

Bridle-Bit.

No. 168,857. Patented Oct. 19, 1875.

Fig. 1.

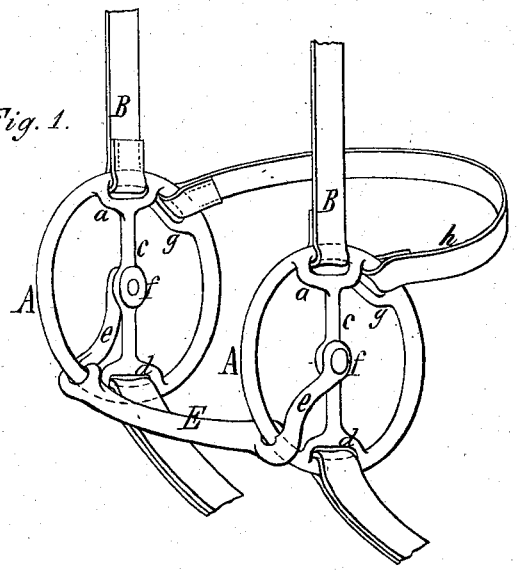


Fig. 2.

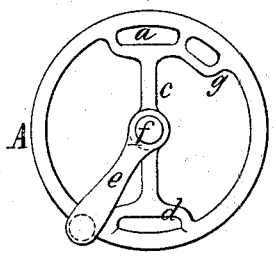


Fig. 3.

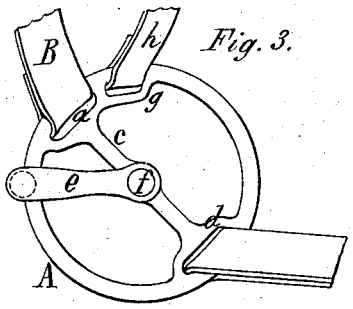


Fig. 4.

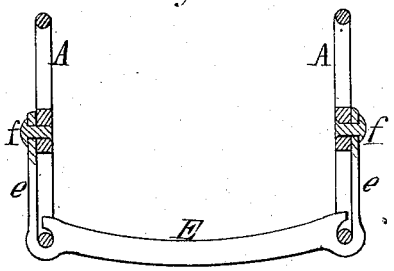
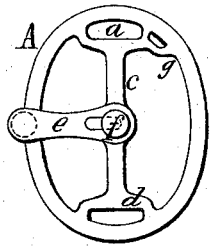


Fig. 5.



Witnesses
Jno. J. Bonner
Edward Wilhelm

James Thornton Inventor
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Atty

UNITED STATES PATENT OFFICE.

JAMES THORNTON, OF WELLSVILLE, ASSIGNOR OF ONE-FOURTH HIS RIGHT TO PRATT & LETCHWORTH, OF BUFFALO, NEW YORK.

IMPROVEMENT IN BRIDLE-BITS.

Specification forming part of Letters Patent No. 168,857, dated October 19, 1875; application filed May 24, 1875.

To all whom it may concern:

Be it known that I, JAMES THORNTON, of Wellsville, in the county of Allegany and State of New York, have invented certain Improvements in Bridle-Bits, of which the following is a specification:

My invention relates to a bridle-bit in which the mouth-piece is provided with two arms pivoted in two frames or cheek-pieces, which are attached at their upper ends to the head-stall, while their lower ends are connected with the reins, so that by pulling on the latter the bit is raised in the mouth of the horse, as will be hereinafter more fully described.

In the accompanying drawing, Figure 1 is a perspective view of my improved bridle-bit. Fig. 2 is a side elevation with the mouth-piece in its lowest position. Fig. 3 is a similar view with the mouth-piece raised. Fig. 4 is a section in lines *x x*, Fig. 3. Fig. 5 represents my improved bridle-bit with a slightly-modified form of cheek-piece.

Like letters of reference refer to like parts in each of the figures.

A A represent two metallic cheek-pieces, preferably of circular form, to which the lower ends of the straps B B of the headstall are attached by means of loops *a a*. *c* is a bar or bridge, forming a pivot-bearing, arranged diametrically in the frames A, so as to be in a vertical position, or nearly so, when the frames A are in their normal position and the reins loose. *d* is a loop formed at or near the lower end of the bar *c*, for the attachment of the reins. E is the mouth-piece or bit proper, and *e e* two radial arms connected with the ends thereof, and turning on pivot-pins *f*, secured to the bridge *c* in the center of each circular frame. The arms *e e* are preferably formed in one piece with the bit E by bending its ends around the frames A, as clearly shown in Fig. 4. When the mouth-piece is swung on its pivots *f* the circular frames A serve as guides, and insure uniform movements of both ends of the mouth-piece. *g* are loops formed with or near the upper loops *a a*, for the attachment of a chin or curb strap, *h*, as clearly shown in Fig. 1.

When the rims are loose the mouth-piece E, by reason of its gravity, assumes its lowest position in the mouth of the horse, as represented in Fig. 2. In tightening or pulling on the reins the loops *a*, to which the headstall is attached, form fixed points or fulcrums, on which the frames A are swung backward, the pull of the reins being applied to the arms *e* of the mouth-piece at the pivots *f*, by which they are connected to the bar *c* and the pivots *f*, traveling backward and upward in a curve described from the head-stall fastening *a* as a center. This pull on the mouth-piece causes the same to be raised in the mouth of the horse with great force, as the bar *c* operates as a lever and increases the pull of the reins, the latter being attached to the end, and the mouth-piece to the middle, of the bar.

If desired, the width of the frames can be reduced by giving the same an oval form, with the longest dimension in line of the bar *c*, when the pivot-hole in the arms *e* must be elongated, in order to enable the mouth-piece to travel on the oval frame, as is clearly shown in Fig. 5.

What I claim as my invention is—

The combination, with the bearing-pieces *c*, secured at their upper ends to the headstall, and having the reins attached to their lower ends, of the bit E and arms *e*, pivoted to the bearing-piece *c*, substantially as and for the purpose hereinbefore set forth.

JAMES THORNTON.

Witnesses:

JAS. MACKEN,

JOHN THORNTON.