(No Model.)

T. KNODER.

TOE WEIGHT.

No. 477,663. Patented June 28, 1892.

Fig. 1.

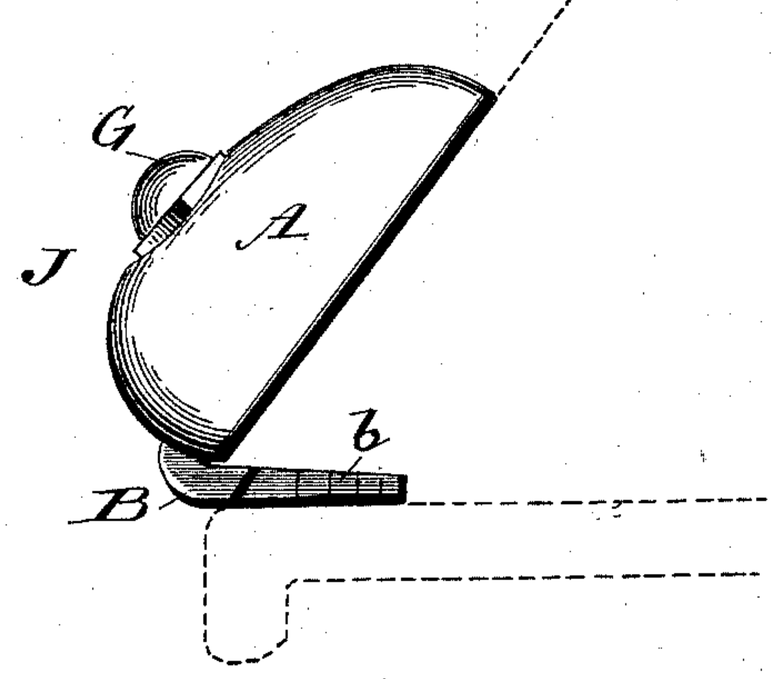


Fig. 2.

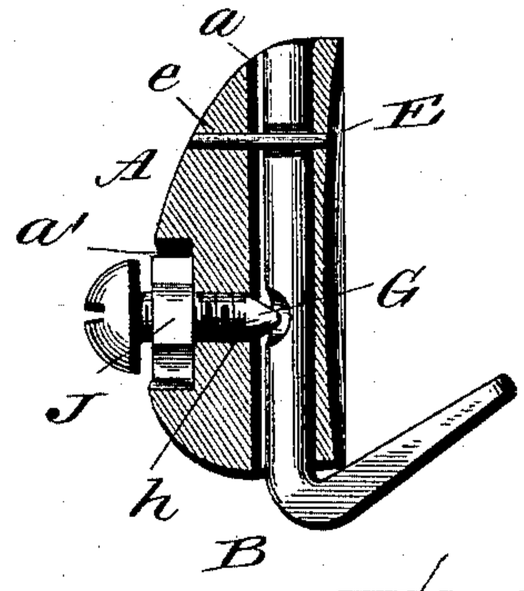


Fig. 3.

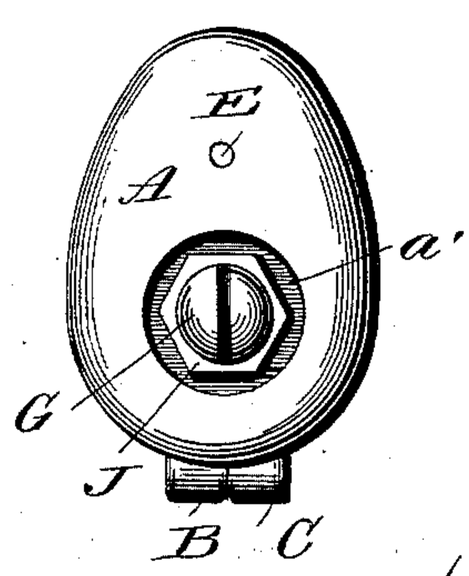


Fig. 4.

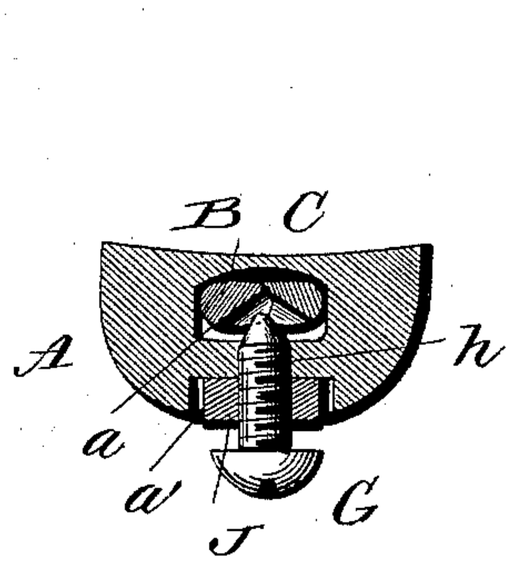


Fig. 5.

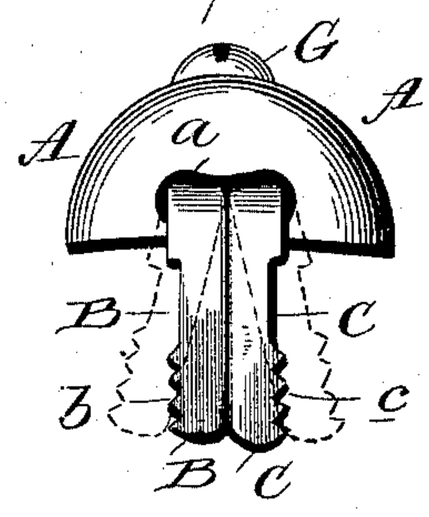
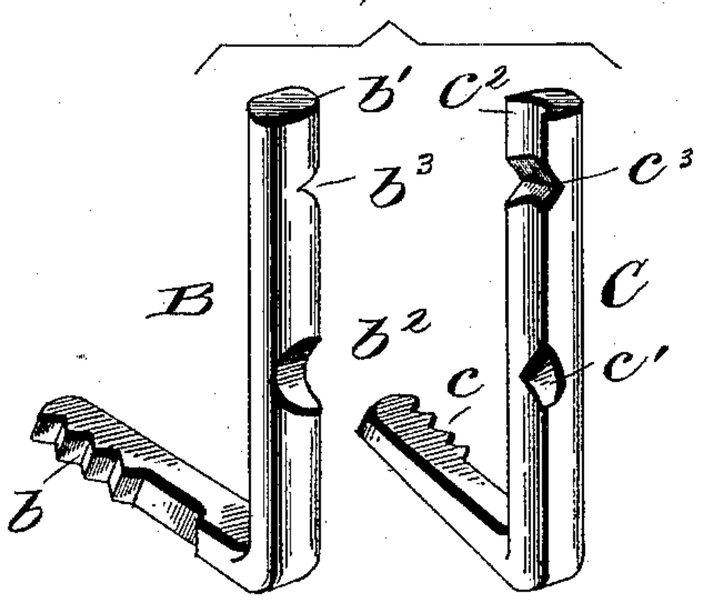


Fig. 6.



Witnesses
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G. M. Copenhaver.

Inventor
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Attorney

UNITED STATES PATENT OFFICE.

TOMAS KNODER, OF AUBURN, INDIANA.

TOE-WEIGHT.

SPECIFICATION forming part of Letters Patent No. 477,663, dated June 28, 1892.

Application filed March 21, 1892. Serial No. 425,830. (No model.)

To all whom it may concern:

Be it known that I, TOMAS KNODER, a citizen of the United States, residing at Auburn, in the county of De Kalb and State of Indiana, have invented certain new and useful Improvements in Toe-Weights for Trotting Horses; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

This invention relates to certain new and useful improvements in toe-weights; and it has for its objects, among others, to provide a simple, cheap, and efficient toe-weight which may be readily applied or removed and which will not slip or get out of position when once applied.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation illustrating the way in which my improved toe-weight is applied. Fig. 2 is a central longitudinal section through the toe-weight and its securing means. Fig. 3 is a top plan. Fig. 4 is a cross-section. Fig. 5 is a view, looking at the front end. Fig. 6 shows in perspective the holding-arms removed.

Like letters of reference indicate like parts throughout the several views in which they appear.

Referring now to the details of the drawings by letter, A designates the toe-weight, which is preferably of substantially the shape shown—that is, somewhat like the half of an egg, with its inner face slightly concaved, as seen in Figs. 2, 4, and 5, to fit the contour of the hoof, and is bored longitudinally, as seen at *a*, and upon its outer face, near the lower end, it is formed with a recess *a'* for a purpose hereinafter explained.

B is a metal arm, with one portion at an acute angle to the other, the shorter portion being toothed or serrated on its outer edges, as seen at *b*, and the longer portion has one edge rounded, as seen at *b'* in Fig. 6, and at a point substantially near its mid-length it is formed with a concave notch b^2 upon its outer upper face, and upon the rounded edge with a substantially-V-shaped notch b^3, as seen best in Fig. 3.

C is another arm, substantially like the arm B, with its shorter portion provided with serrations or teeth *c* and its longer portion with a concave notch *c'*, and its longitudinal face, which is designed when in use to lie against the rounded edge of the arm B, concaved, as seen at c^2, and provided with a substantially-V-shaped notch c^3, all as clearly shown in Fig. 6. The notches b^2 and *c'* are so arranged relatively to each other that when the two arms are in position the said notches will be one opposite the other, as seen in Fig. 4. The notches b^3 and c^3 bear the same relative relation to each other.

In applying the toe-weight the weight is placed upon the hoof, as indicated in Fig. 1, and the longer portions of the arms B and C are inserted in the bore of the weight parallel with each other, with the rounded edge of the one fitted in the concave channel of the other, and the shorter portions are inserted in a recess or mortise between the hoof and the shoe, as indicated in Fig. 1. A nail or pin E is then passed through a hole *e* in the weight near its upper end, which nail passes through the V-shaped notches in the two arms B and C, and thus holds them from displacement. Next a screw G, with a conical inner end, is screwed into a screw-threaded hole *h* in the weight, as seen in Fig. 2, and against the longer portions of the two arms in the concave notches thereof, and as the screw is screwed in its point entering these notches spreads the shorter portions of the arms, as seen in Fig. 5, and their serrations or teeth engage the walls of the mortise or recess between the shoe and hoof and bind the parts in position. A jam-nut J is used, which is seated in the recess *a'* of the weight, as seen in Figs. 2 and 3. Loosening of the screw and removal of the pin permits of removal of the weight.

The weights may be made of various sizes and shapes and of any suitable material, as may also the arms B and C.

What I claim as new is—

1. The combination, with a toe-weight hav-

ing a longitudinal bore, of disconnected holding-arms having portions parallel with the bottom of the hoof detachably held within said bore and serrated on the outer edges of these portions, and means passing into the weight and engaging said arms to spread the same, substantially as specified.

2. The combination, with the toe-weight having a longitudinal bore, of the arms having acute-angled portions serrated on their outer edges and parallel with the bottom of the hoof and the main portions provided with registering notches on their inner faces, and a screw passing into the weight and engaging said notches, as set forth.

3. The combination, with a toe-weight having a longitudinal bore, of arms having portions at acute angles to their length parallel with the bottom of the hoof and serrated on their outer edges, with the longer portions provided with both concave and V-shaped notches on their adjacent faces, which are fitted to one another, and a screw passing into the weight and engaging the concave notches of the said arms, as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

TOMAS KNODER.

Witnesses:
HENRY J. SHAFER,
JOHN D. REINHART.