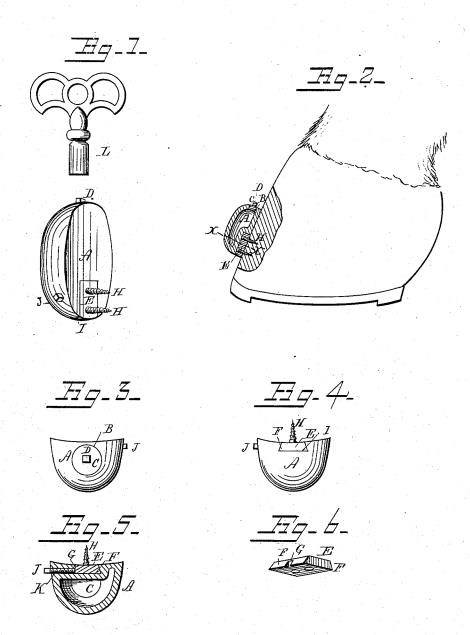
## M. H. HOUGHTON.

TOE WEIGHT.

No. 263,704.

Patented Sept. 5, 1882.



WITNESSES Franck L. Ourand J. R. Sillell,

INVENTOR

INVENTOR

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## UNITED STATES PATENT OFFICE.

MOSES H. HOUGHTON, OF NEW HAVEN, CONNECTICUT.

## TOE-WEIGHT.

SPECIFICATION forming part of Letters Patent No. 263,704, dated September 5, 1882. Application filed July 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, Moses H. Houghton, of New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Toe-Weights; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and 10 use the same, reference being had to the ac-companying drawings, which form a part of this specification.

This invention relates to toe-weights for horses, and has for its object to provide a sim-15 ple, durable, inexpensive, and efficient device.

To this end it consists in certain improvements in the construction and operation of the same.

In the drawings, Figure 1 is a perspective 20 view, showing the weight and securing key; Fig. 2, a vertical sectional view of the same attached to the hoof; Fig. 3, a top view; Fig. 4, a bottom view; Fig. 5, a transverse sectional view on the line x x, Fig. 2; and Fig. 25 6, a detail view, in perspective, of the holding-

Referring to the drawings, A designates a hollow shell or casting, which is formed with a screw-threaded opening, B, at the top, 30 adapted to be closed by a screw-threaded disk, C, having an operating-stud, D. Through the opening B it is designed to pour or pass suitable weighty material, preferably quicksilver. By using the latter material the weight is 35 readily regulated by the amount of quicksilver, and an automatically movable reversible

ground the quicksilver is thrown to the top of the cavity of shell A, and when the foot 40 is thrown forward to the ground the quicksilver, like a ball, is carried to the toe or lower end of the weight. Thus the weight automati-cally adapts itself to the position of the foot and so plays on the muscles of the animal as

weight is secured, as when the foot is off the

45 to make him more steady and to increase his speed.

E is a plate having beveled side edges, F F, in one of which is formed a notch, G, and secured permanently to the hoof by screws H 50 H, or other suitable means.

The lower end of the rear face of shell A is provided with a dovetailed groove, I, which is received by plate E and secured thereon

by means of a set-screw, J, passing through a screw-threaded opening, K, in the shell A 55 at right angles to groove I and entering notch G in the edge of plate E.

L is a key for operating stud D and screw J. The operation and advantages of my invention will be readily understood. The toe- 60 weight can be attached or removed instantly, and occasions no strain on the nails of the shoe, as it is connected directly with the hoof. Thus should the horse throw the shoe the weight is retained.

I claim and desire to secure by Letters Pat-

1. A toe-weight comprising a hollow shell or casting adapted to contain quicksilver or other suitable material that will adapt itself 70 to the position of the foot, and provided with means for attachment to the hoof, substantially as set forth.

2. The combination, with a holding plate adapted to be attached to the hoof of the 75 horse, of a hollow shell or casting adapted to be removably secured on said plate, and having an opening at its top closed by a disk or plate, substantially as set forth.

3. The combination, with a dovetailed plate 80 adapted to be secured permanently on the hoof, of the toe-weight formed with a dovetailed groove in its rear face at the lower end, substantially as set forth.

4. The combination, with the dovetailed 85 plate having a notch in one edge and adapted to be secured permanently on the hoof, of the toe-weight having the dovetailed groove, the screw-threaded perforation at right angles thereto, and the set-screw, substantially as set go forth.

5. The combination, with the holding-plate adapted to be secured permanently on the hoof, of the hollow shell or casting having a screw-threaded opening at its top, and a screw- 95 threaded closing plate or disk having an operating-stud, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

## MOSES HENRY HOUGHTON.

Witnesses: JAMES A. WOOD, ISAAC ULLMAN.