

(No Model.)

C. H. ETTER.

ADJUSTABLE TOE WEIGHT FOR TROTTING HORSES.

No. 286,189.

Patented Oct. 9, 1883.

Fig. 1.

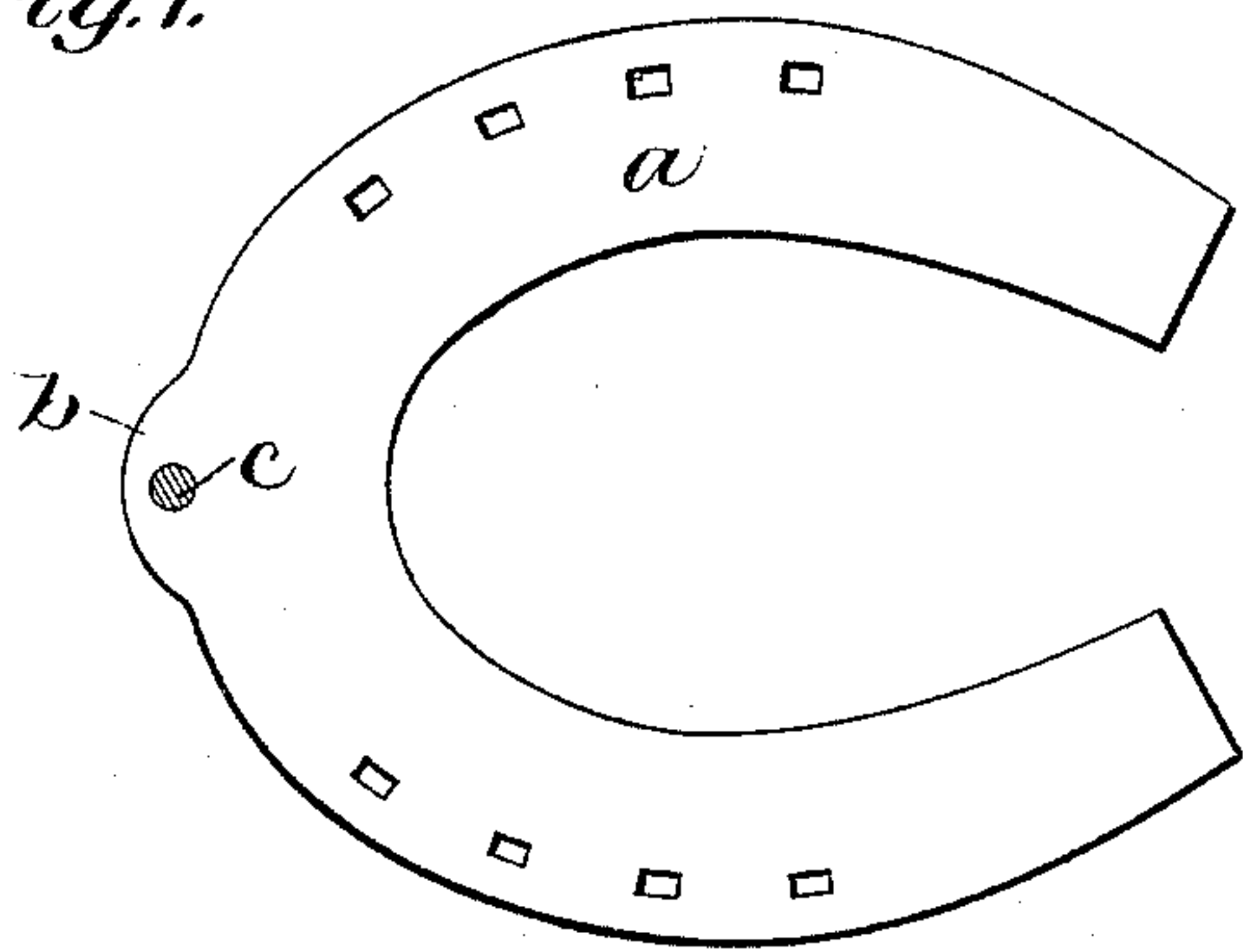


Fig. 2.

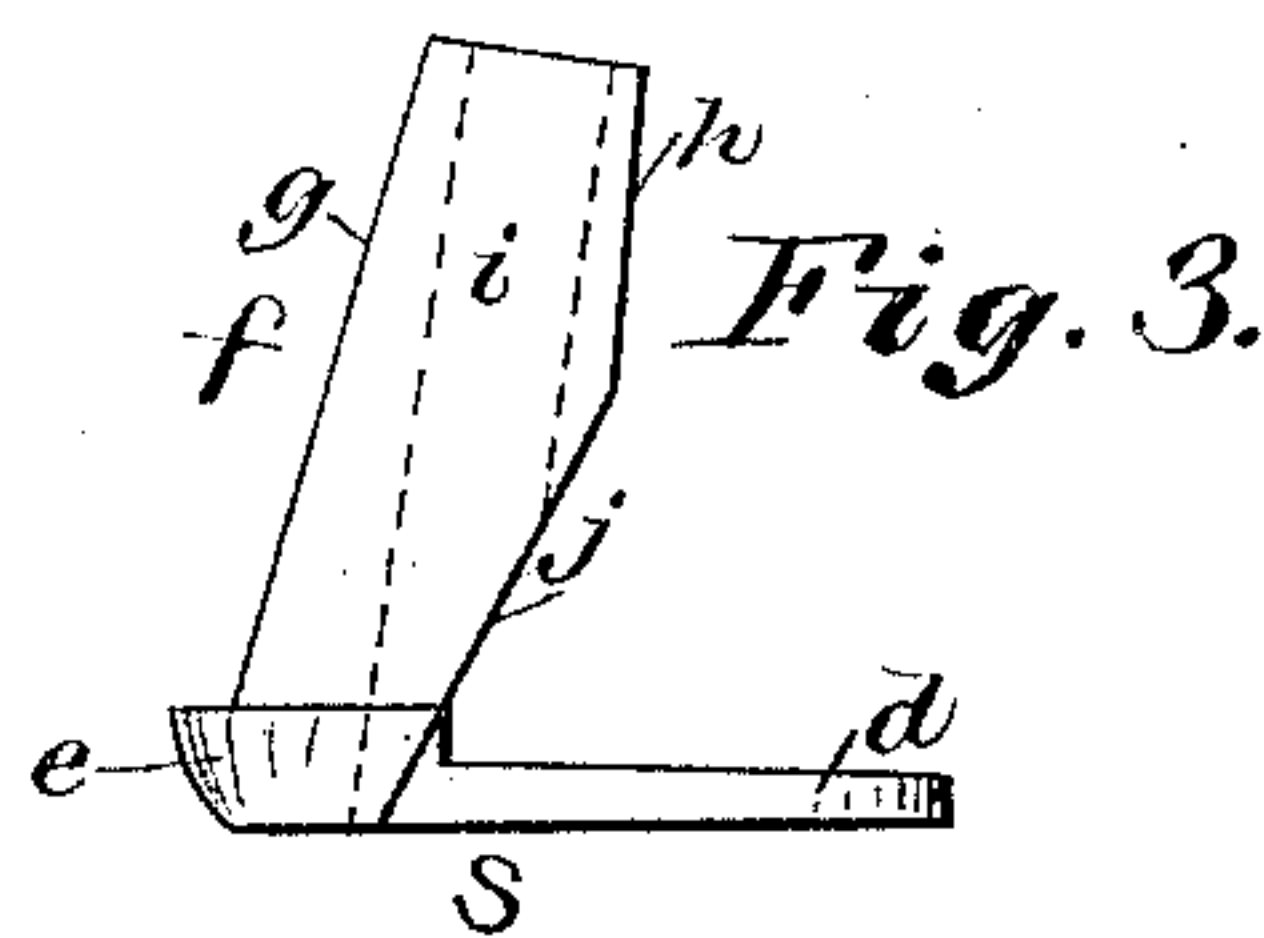
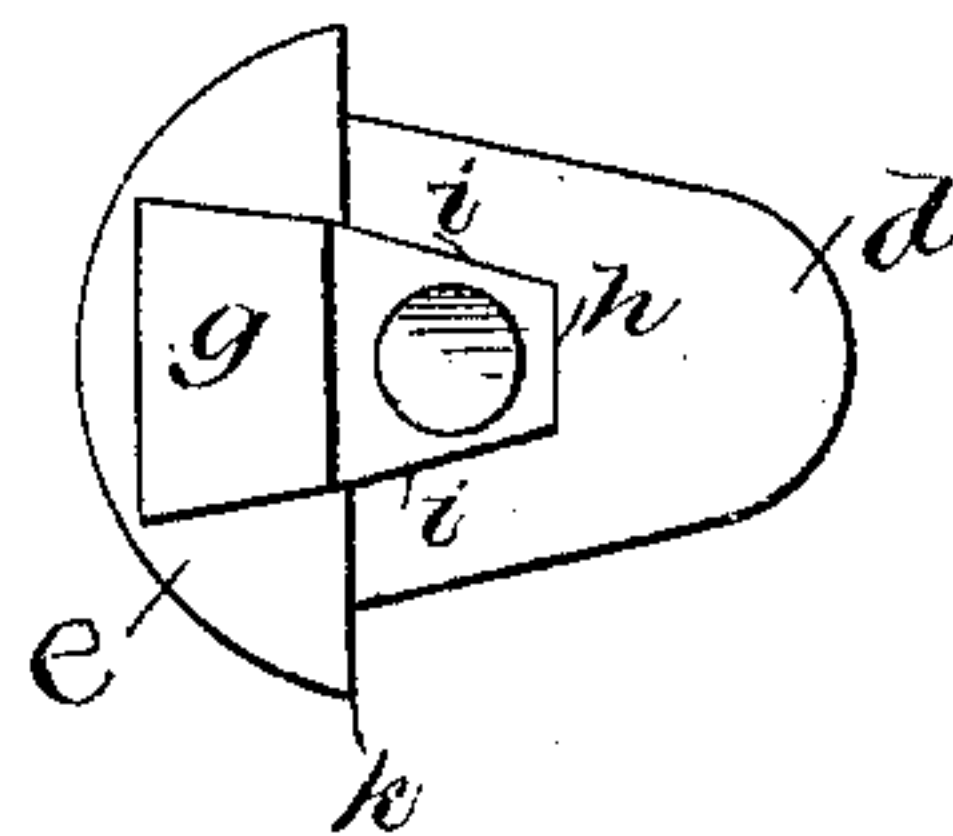


Fig. 8.

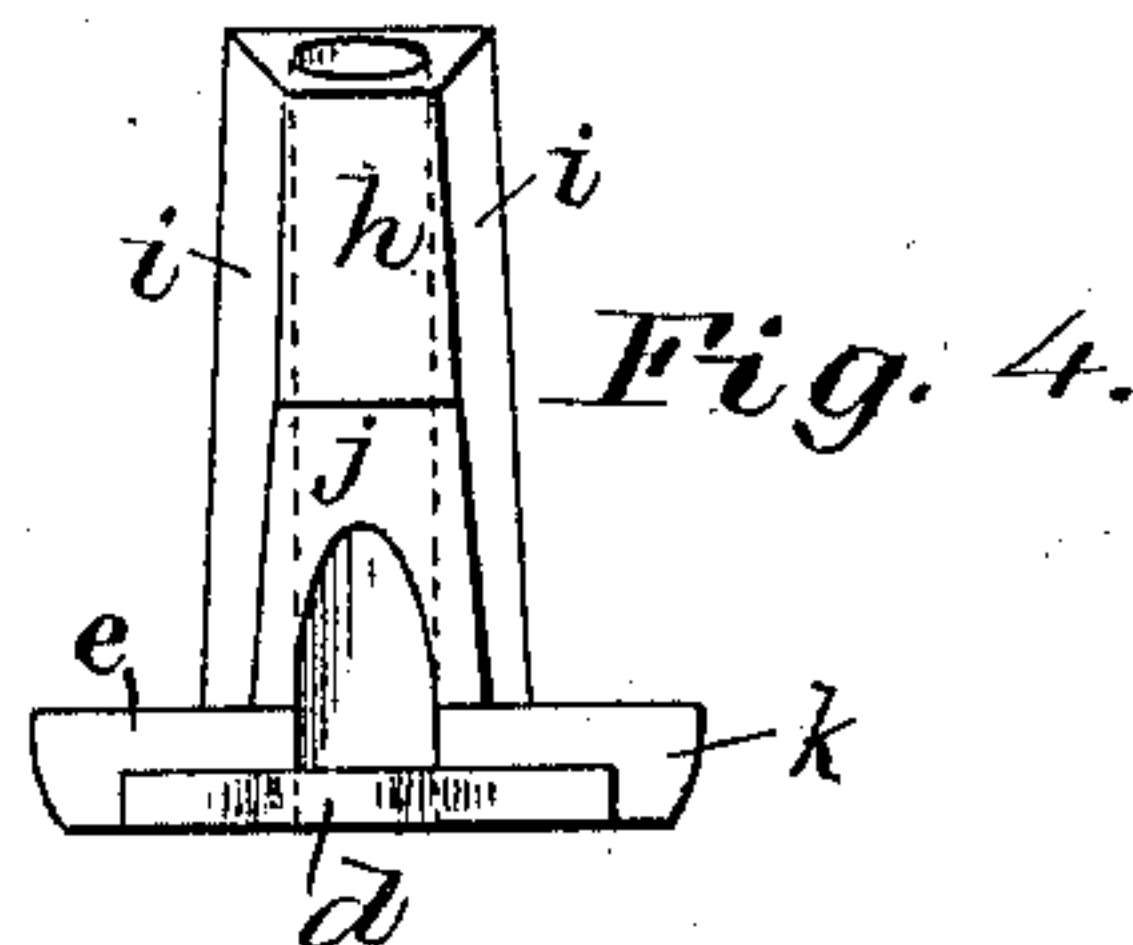
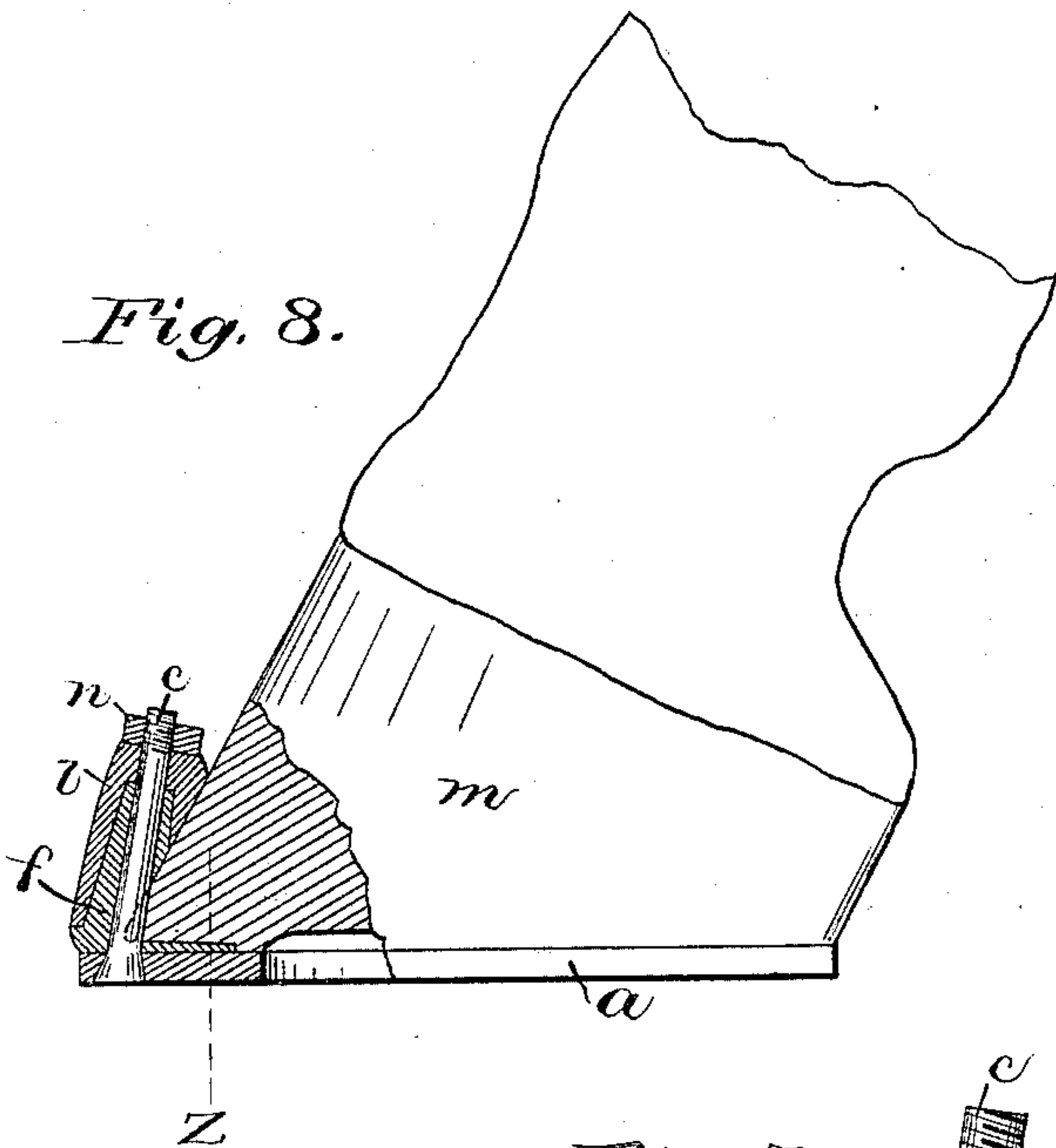


Fig. 7.

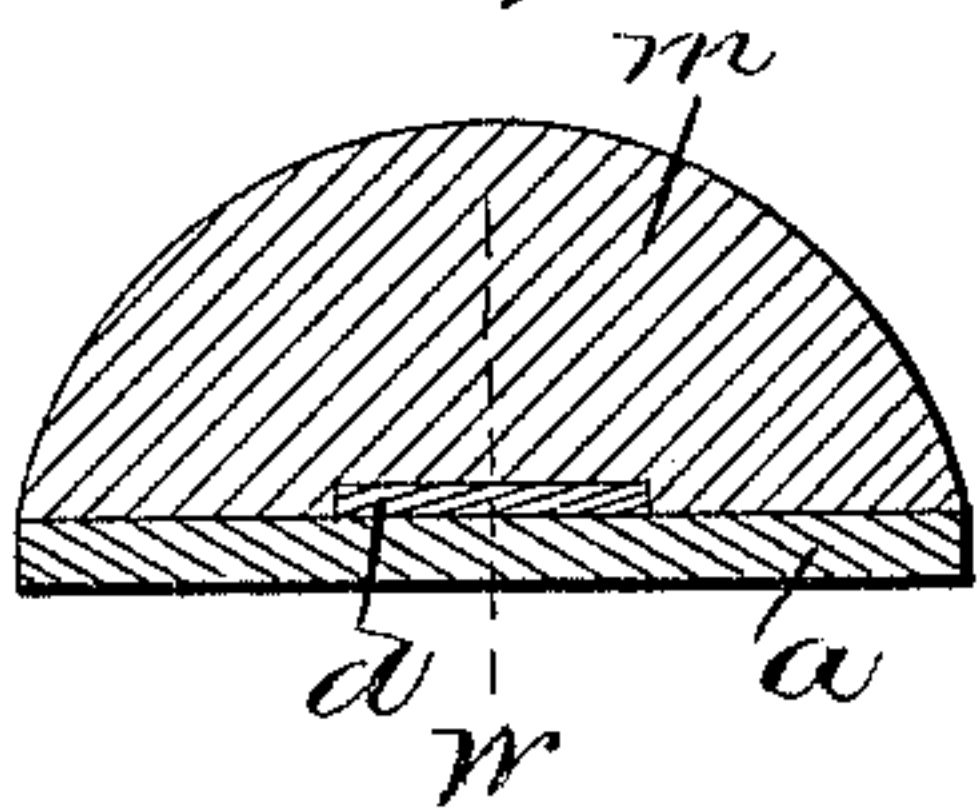


Fig. 5.

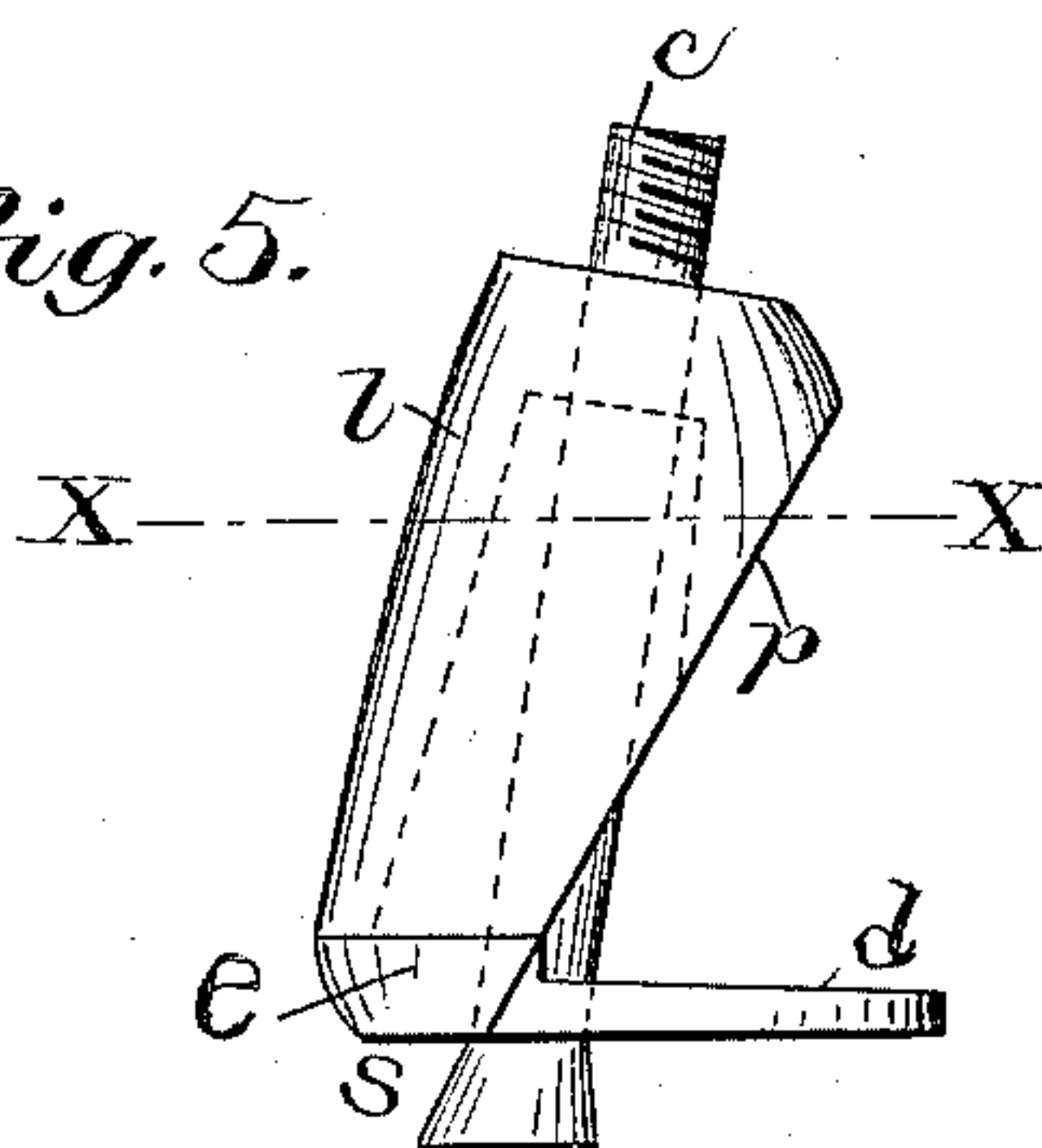
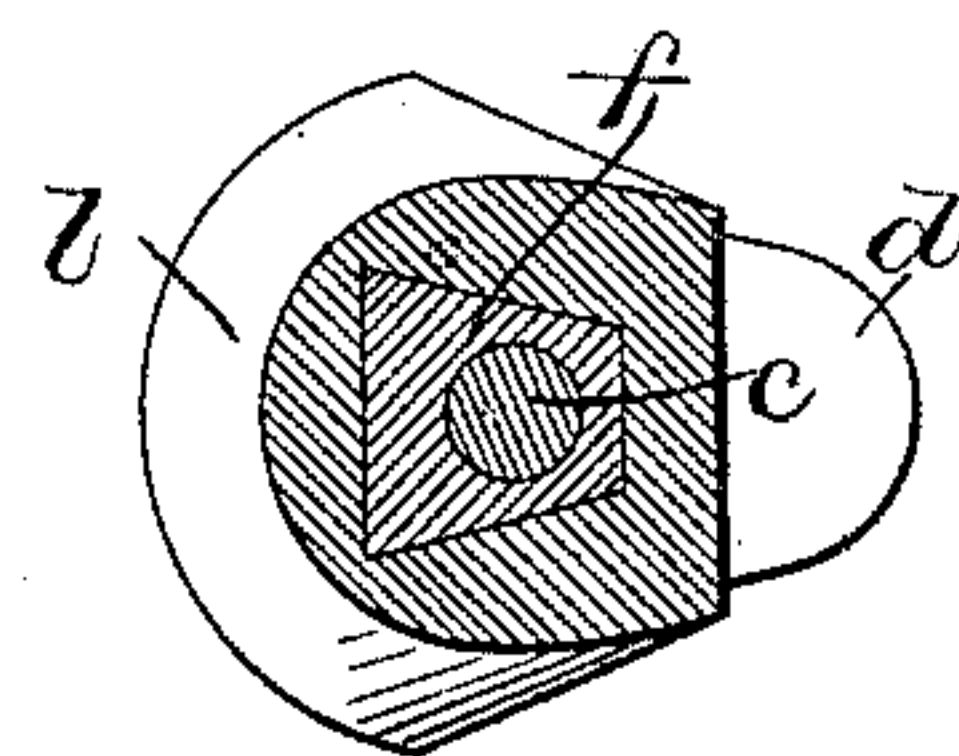


Fig. 6.



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# UNITED STATES PATENT OFFICE.

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## ADJUSTABLE TOE-WEIGHT FOR TROTTING HORSES.

SPECIFICATION forming part of Letters Patent No. 286,189, dated October 9, 1883.

Application filed August 3, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, CYRUS H. ETTER, a citizen of the Province of Nova Scotia, in the Dominion of Canada, residing at Medford, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Adjustable Toe-Weights for Trotting Horses, which will, in connection with the accompanying drawings, be hereinafter fully described, and specifically defined in the appended claims.

This invention relates to the weights which are attached to the front part of shoes for trotting horses; and the invention consists in the construction and combination of the divers devices embodied therein, as will, in connection with the accompanying drawings, be hereinafter more particularly and fully set forth and claimed.

In said drawings, Figure 1 is a top or plan view of a shoe formed to receive my toe-weight, the weight-securing bolt being shown in position therein in cross-section. Fig. 2 is a top plan view of the base-section of my weight. Fig. 3 is a side elevation of the part shown in Fig. 2, taken as viewed from the bottom or lower edge of the drawing. Fig. 4 is a rear elevation of the part shown in Figs. 2 and 3, taken as viewed from the right in said figures. Fig. 5 is a view taken from the same standpoint as Fig. 3, and showing the part shown in that figure, and also the upper or removable portion of the weight in position thereon, as indicated by the interlocking dotted lines, and the securing-bolt being shown in position in the two parts. Fig. 6 is a horizontal section taken as on line *x x* through the parts shown in Fig. 5. Fig. 7 is a vertical section taken through the hoof, the shoe, and the base part of the weight, as on line *z*, Fig. 8, and as looking to the right in that figure. Fig. 8 is a vertical longitudinal section taken as through Fig. 7 on line *w*, and showing the two parts of the weight, the shoe, and the toe part of the hoof in section, and the securing-bolt in elevation, with its screw-nut in section.

In these views, *a* represents the shoe, which is formed with a slight arc-like projection, *b*, with a hole for the weight-securing bolt *c*, so arranged that the prolongation of the general curve of the shoe would pass through the axis of said bolt. The lower part of the weight is

formed with a base plate, *s*, to rest upon the top of the shoe, said plate having the rear thinner part, *d*, and thicker front part, *e*, meeting at line *k*. A hollow stud, *f*, is formed upon this bed, as shown. The front face, *g*, and rear face, *h*, of this stud are, in the cross-section of the stud, parallel with each other, while side faces, *i i*, are oblique to each other, converging rearward, and face *h* is undercut at *j*, so as to terminate at the line *k* between *d* and *e* of the base *s*, and the axis of the bolt-hole through stud *f* and the base *s* is also coincident with the said point of intersection, *k*, of parts *d* and *e*. The under side of part *e* is at its front line formed to correspond with the part of shoe *a* on which it is seated. The upper part, *l*, of the weight is formed at its base with an outline corresponding with that part *e*, and also with a hole or chamber corresponding to stud *f*, and in which the latter part fits, as shown. A hole to admit the bolt *c* is prolonged through the upper part of *l*, as shown.

In applying my weight to the hoof, the part *d* is fitted in a recess in the underside of the hoof, as shown in Figs. 7, 8, the apex of the toe of the hoof being at line *k*. The half-diameter of the lower part of bolt *c* is fitted in a vertical groove in the toe of the hoof. The bolt passes up through the shoe, the base *s*, stud *f*, and part *l*, and all the parts are firmly secured together by bolt *c*, the shoe being first secured to the hoof by nails in the usual manner. The rear line, *j*, of stud *f* and line *p* of weight *l* are so arranged as to conform to the backward slope of the front of the hoof, as shown. By forming lines *i i* of stud *f* oblique in horizontal plane, and the passage in weight *l* to correspond therewith, the lower part of *l*, where the stud *f* is undercut at *j*, is held centrally and firmly on said stud; and by means of the removable part *l* any desired amount of weight may be added to compensate for the wear of the shoe or for other reasons; and part *l* may be of any desired or varying lengths, as bolt *c*, by being straight, may be at any time removed without displacement of base *s*, and replaced by a longer or shorter one, or to replace one that is worn or injured.

I am aware that removable toe-weights have before been used; hence I do not claim the same, broadly, or in the abstract; but

I do claim as my invention—



1. In a toe-weight, the combination, with a base-plate formed with a thinner rear portion, to be inserted in the hoof, and a thicker front portion having formed thereon a stud whose rear line is coincident with the intersection or shoulder of said thicker and thinner parts of the plate, of a removable weight adapted to be secured on said stud, and formed at its base with a rear line coincident with that of said stud and of said shoulder in the plate, substantially as specified.
2. In a toe-weight, the combination of the base formed to be fitted to the hoof and secured to the shoe, and with a hollow projection rising therefrom, and the upper or removable section or part formed with a recess or chamber to receive said projection, and with a coincident passage for a securing-bolt extending above said upper section, substantially as specified.
3. In a toe-weight, the combination of a base formed with a hollow projection whose side lines are rearwardly converging, and the upper or removable section formed with a chamber corresponding with and adapted to receive said projection, and with a coincident passage to receive the securing-bolt, substantially as specified.
4. In a toe-weight, the combination, with the shoe and a securing-bolt, of a base formed and adapted to be fitted in the hoof, and to be seated upon the shoe, and having a sloping stud with a passage to receive said bolt, and an upper part or section having a chamber to receive said stud, and a hole at the upper end for the passage of said bolt, substantially as specified.

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Witnesses:

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