(No Model.)

G. TOMPKINS.

ADJUSTABLE SHOE WEIGHT FOR HORSES.

No. 457,235. Patented Aug. 4, 1891.

Fig. 1.

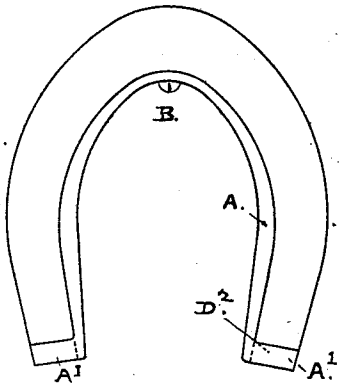


Fig. 2.

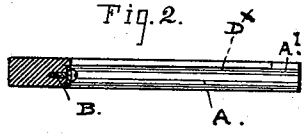


Fig. 4.

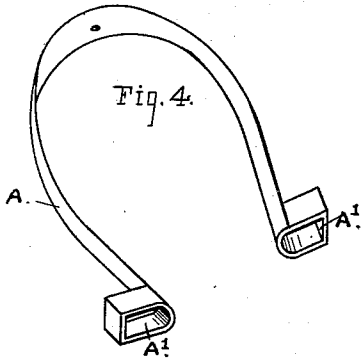


Fig. 3.

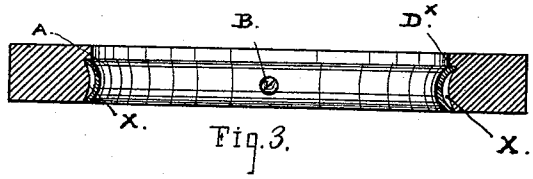
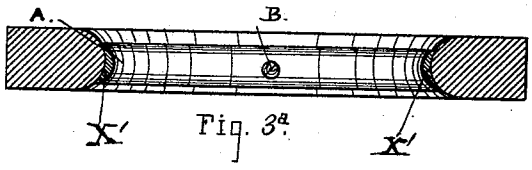


Fig. 3a.



Witnesses:

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

UNITED STATES PATENT OFFICE.

GILBERT TOMPKINS, OF SAN LEANDRO, CALIFORNIA.

ADJUSTABLE SHOE-WEIGHT FOR HORSES.

SPECIFICATION forming part of Letters Patent No. 457,235, dated August 4, 1891.

Application filed July 17, 1890. Serial No. 359,071. (No model.)

To all whom it may concern:

Be it known that I, GILBERT TOMPKINS, a citizen of the United States, residing at San Leandro, county of Alameda, State of California, have invented certain new and useful Improvements in Adjustable Shoe-Weights for Horses, of which the following is a specification.

The operation of fitting and adjusting shoes to the feet of a pacing or trotting horse to ascertain what weight of shoe is best suited to the animal and at what points that weight should be increased, commonly known as "balancing" the horse, is resorted to for the purpose of improving the gait and speed of the horse, and, as no two horses will be found to carry their feet alike, the weight of shoe best adapted to each foot is formed in many cases only by changing the shoe several times. That operation, however, is attended with expense, and is more or less injurious to the animal.

The object of my invention is to provide a detachable shoe-weight that can be readily applied and adjusted to the shoe without removing the shoe, and when finally set it can be securely fixed to the shoe without danger of being loosened; and to such end it consists, mainly, in a detachable shoe-weight and means of fastening it to the shoe; also, in a detachable shoe-weight adapted to be fixed against the inner edge or rim of a horseshoe without materially increasing the breadth or tread of the shoe; also, in a detachable shoe-weight adapted to be fixed against the inner rim of the shoe and adjustable and variable as to weight at any point or points to increase the weight at any point around the shoe. It includes, also, a detachable shoe-weight, in combination with a horseshoe having its inner rim or edge shaped to receive the weight and to afford a space or recess between the shoe and the weight for the insertion of supplemental weights, all as hereinafter more fully described. I proceed to attain these objects by the construction and combination of parts illustrated in the accompanying drawings, in which—

Figure 1 represents a horseshoe with my adjustable weight attached to it. Fig. 2 is a section on a longitudinal line through the center. Figs. 3 and 3ª are transverse sections on an enlarged scale. Fig. 4 is a perspective view of the weight detached from the shoe.

The weight A is shaped to fit inside the shoe against the inner edge and is a continuous piece of metal of such form in cross-section that when in place it presents no surface for actual contact with the sole of the foot and does not increase the breadth of the bottom or tread of the shoe. It is of suitable length, also, to extend around the inside edge of the shoe, and at the rear ends it is fastened to the shoe by clasps or bands A′, while at the front or toe it is secured to the shoe by a screw or pin B. The straps or bands A′ are in one piece with the weight and are formed to be wrapped around the head of the shoe by heating and bending them with the hammer, or they can be closed loops of suitable size to slip over the heel ends of the shoe. This last-mentioned form is designed principally for shoes without heel-calks. In addition to this fastening the weight is secured at the toe by tapping a hole into the rim of the shoe from the inner side to take a screw B, that is inserted through a hole in the weight.

I prefer to make this weight of curved or concave form in cross-section with the greatest thickness of metal at the center and the top and bottom edges reduced to a thin edge, as illustrated in Figs. 3 and 3ª; also, to have the weight somewhat less in width than the rim of the shoe, so that when set in place the edges of the weight will be out of contact with the ground and with the bottom of the foot. This is the best form to give the weight, as it affords a space or recess X, in which a supplementary weight can be inserted and fixed at any point around the shoe, as shown at X′, Fig. 3ª. I do not confine the form and construction of the weight to such shape, however, as it may be made of flat or rectangular shape in cross-section, or of other shapes to set closely against the edge of the shoe, as these weights should be manufactured in several sizes, varying by ounces or fractions of an ounce, if necessary, between one size and the next and finished ready to be set into any shoe; but it will be found advisable in many cases to have the inner rim or edge of the shoe specially shaped to take these weights, and the best form of edge for this purpose

is one with a ledge or shoulder overhanging along the top of the shoe or that side next the foot, so that when the weight is set in place it will bear against the shoulder, thereby relieving the fastenings of upward pressure and preventing the weight from being forced up against the foot of the animal. A form of edge for this purpose is illustrated at $D^{\times}$, Figs. 2 and 3. It can be produced by heating the shoe and running a suitable tool around the edge, or it can be formed in the bar from which the shoe is made at the time of manufacture. I prefer, also, to provide each heel portion of the shoe with a slot or groove D^{2} on the top face to let in the band or loop flush with the surface, so that the strap can be set around it while the shoe is fast on the foot.

By changing these weights from time to time on the horse the shoe of each foot can be weighted to the best advantage, and thus the work of balancing the trotting or pacing horse is rendered less tedious and expensive.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A detachable shoe-weight for balancing horses, having approximately the shape of the shoe, extending entirely around the inside thereof, and adapted to set into the shoe and to be secured against the inner rim or edge, subtantially as described.

2. A detachable shoe-weight for balancing horses, having approximately the shape of the shoe, to set against the inner rim or edge thereof out of contact with the foot of the animal and having bands or loops at the ends to embrace the heel portions of the shoe, and fastening means at the toe, substantially as described.

3. A detachable shoe-weight for balancing horses, extending round the entire inner rim of the shoe, having approximately the shape of a horseshoe to set and be fastened against the inner rim or edge thereof, and adapted by its shape to afford a space or recess, as described, for a supplementary weight at any portion around the rim.

4. In combination with a detachable shoe-weight adapted by its form to fit inside a horseshoe against the inner rim or edge thereof, and a supplementary weight which is applied between said shoe-weight and shoe and is held in place by the said weight.

5. In combination with a detachable shoe-weight formed to fit and extending entirely around the inside and against the inner rim or edge of the shoe, and a horseshoe having its inner rim provided with a shoulder or ledge along the top, substantially as described, for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

GILBERT TOMPKINS. [L. S.]

Witnesses:

CHAS. E. KELLY,

EDWARD E. OSBORN.