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M. McNALLEY & E. W. BRETZ.

TOE WEIGHT FOR HORSES.

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Fig. 1.

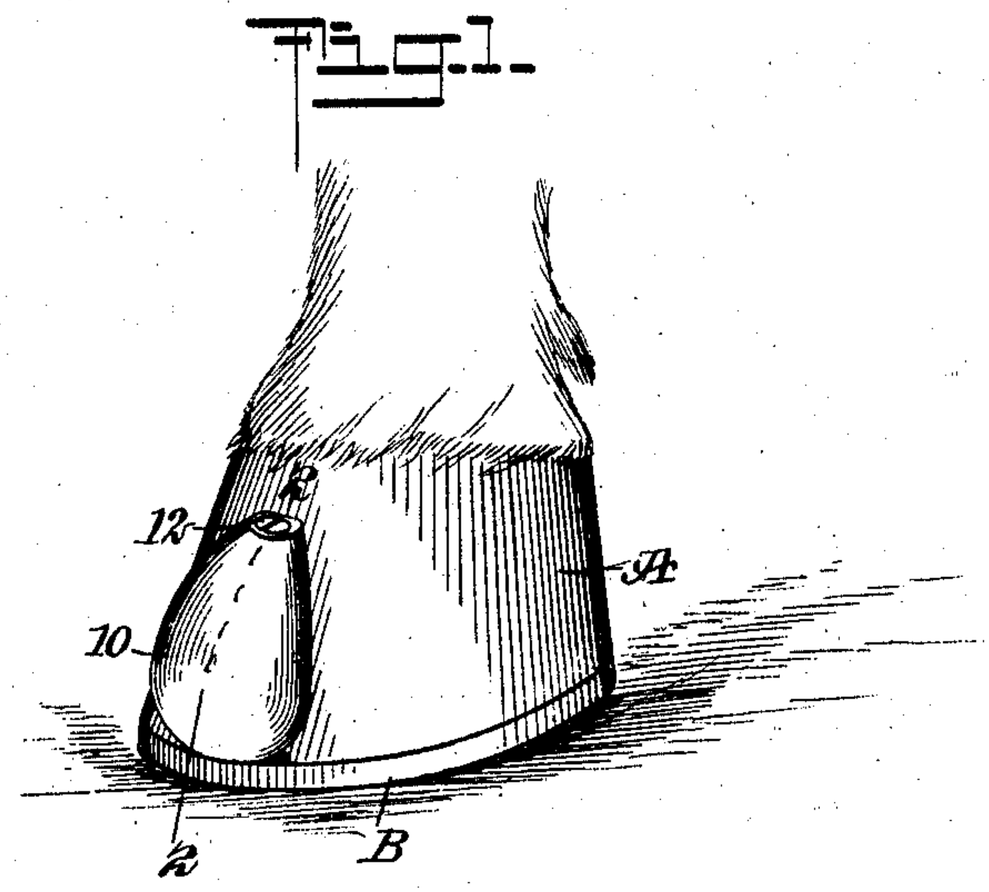


Fig. 2.

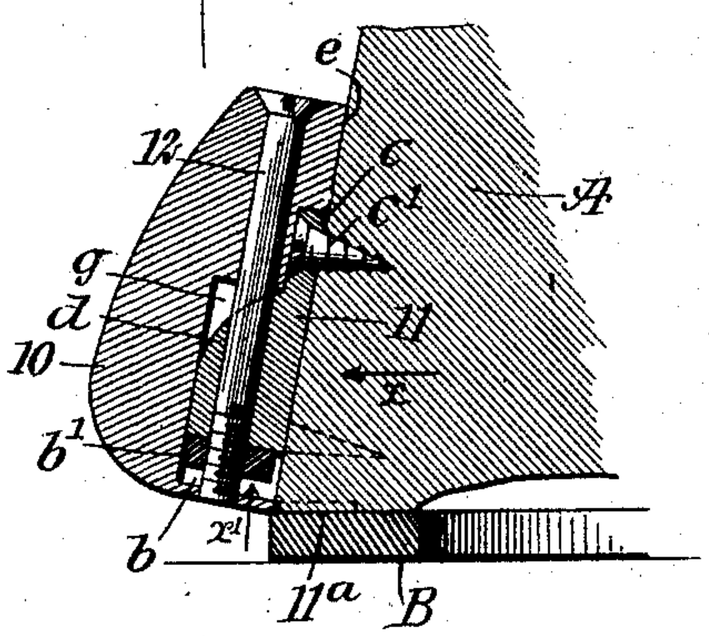


Fig. 3.

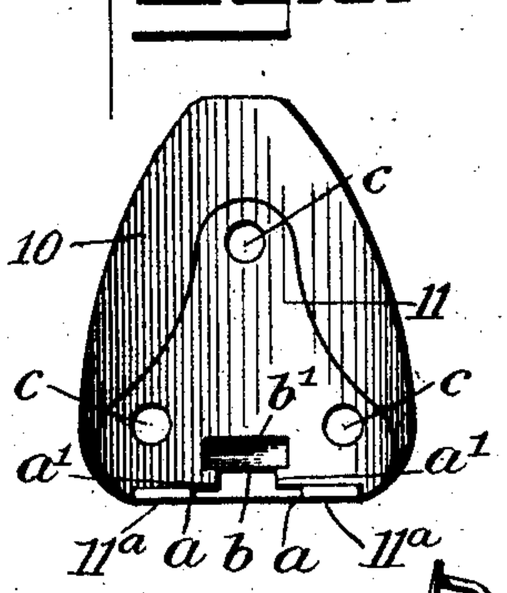


Fig. 5.

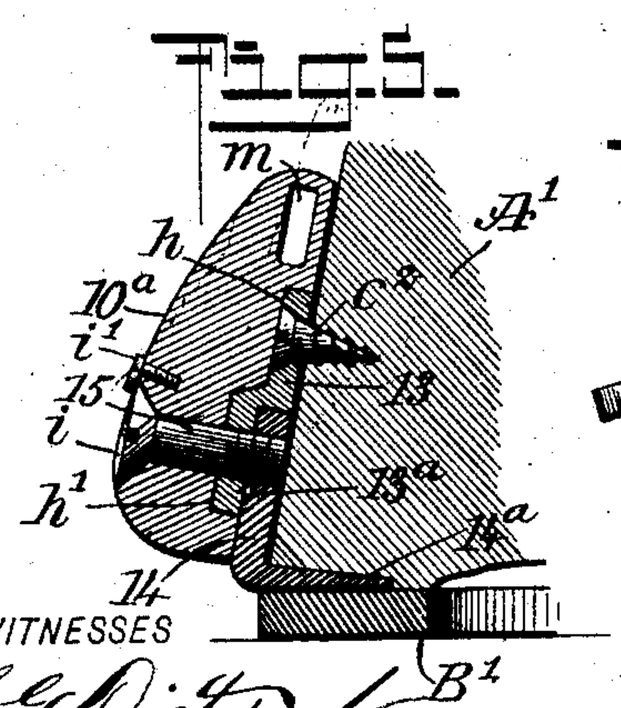


Fig. 4.

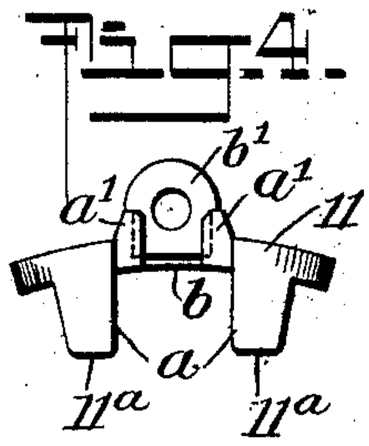
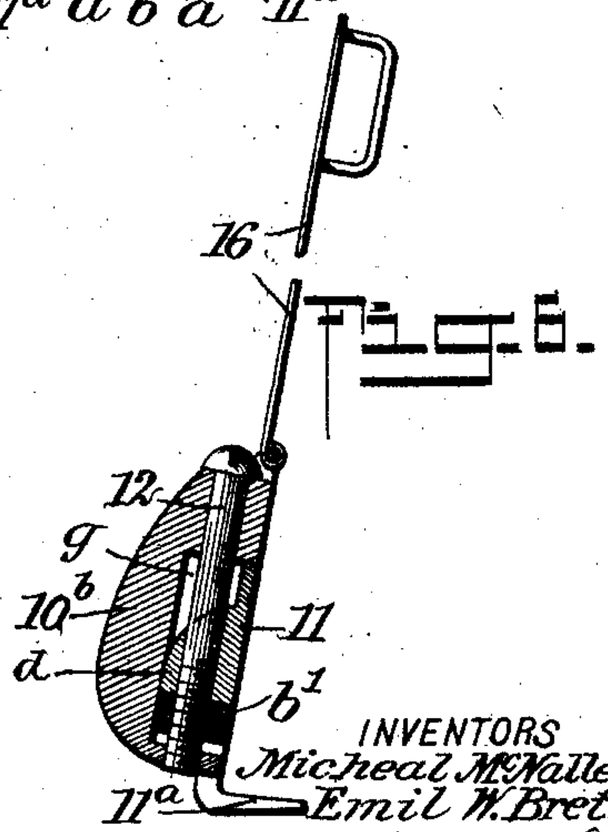


Fig. 6.



WITNESSES

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TOE-WEIGHT FOR HORSES.

No. 859,685. Specification of Letters Patent. Patented July 9, 1907.

Application filed April 16, 1907. Serial No. 368,505.

To all whom it may concern:

Be it known that we, MICHEAL MCNALLEY and EMIL WILLIAM BRETZ, both citizens of the United States, and residents of St. Louis, in the State of Missouri, have invented a new and Improved Toe-Weight for Horses, of which the following is a full, clear, and exact description.

The purpose of this invention is to provide a toe weight having novel, simple parts, that are adapted for quick assemblage into complete form, and that is readily secured in place on the toe of a horse in a reliable manner, without injury to the foot of the animal.

The invention consists in the novel construction and combination of parts, as is hereinafter described and defined in the appended claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the preferred form of the toe weight applied upon the hoof of a horse. Fig. 2 is a longitudinal vertical section, substantially on the line 2—2, in Fig. 1; Fig. 3 is a detached rear face view of the preferred form for the toe weight, seen in direction of the arrow x, in Fig. 2; Fig. 4 is an inverted plan view of the spur section removed from the body section thereof, and seen in the direction of the arrow x' in Fig. 2; Fig. 5 is a longitudinal vertical sectional view, of a modified form of the device, and Fig. 6 is a longitudinal sectional view, differing slightly from the construction shown in Fig. 2.

In the preferred construction of the toe weight, as indicated in Figs. 1 to 4 inclusive, of the drawings, the device embodies two main sections, of which 10 represents the weight body or block, and 11 a spur plate that affords means for the detachable connection of the portion 10 upon the front face of the hoof A of a horse.

The section 11 consists essentially of a metal plate having a trefoil shaped contour, as appears in Fig. 3, and a concavo-convex form considered laterally, the concave face thereof being designed to have intimate contact with the front surface of a hoof such as A, whereon the spur plate is to be secured.

Projecting laterally from the lower edge of the plate 11 are two flanges or toes 11^a that are integral therewith, and spaced apart sufficiently to afford a gap between their adjacent edges a, a, as appears in Fig. 4.

Between the spurs 11^a and projecting beyond the convex surface of the plate 11 are two spaced lugs a', a', which are under-cut along their adjacent side edges, as indicated by dotted lines in Fig. 4; and above said lugs a rectangular opening b is formed in the spur plate, wherein a correspondingly shaped nut b' is inserted, that seats upon the rabbeted upper faces of the lugs a', as indicated in Figs. 3 and 4.

In each corner of the trefoil shaped spur plate 11, a counter-sunk perforation c is formed that receive screws c' which pass through said perforations into the hoof A, when the spur plate is affixed thereon, and as indicated for one of said screws in Fig. 2, the beveled heads of the screws that seat in the counter sinks of the perforations, are thus rendered flush with the outer or convex surface of the spur plate.

Above the rectangular opening b in the spur plate 11 and forming the upper wall thereof is a forwardly projecting boss d that is preferably rounded on its outer face, said boss having a perforation vertically therethrough, which receives the body of a screw bolt 12, that will be hereinafter more particularly described.

As shown in Figs. 2 and 3, the toe weight block 10 is substantially semi-ovate in form having a flattened side thereon, which is concaved properly to have intimate contact with the convex forward side of an animal's hoof such as A.

In the concave side e of the toe weight block 10, a recess g is formed, of a shape and dimensions that will permit the close-fitting embedment therein of the boss d, as appears in Fig. 2. The relative depth of the recess g and projection of the boss d is such, that when the latter is completely embedded in the recess, the concave surfaces of the spur plate and weight block 10 conform with each other, and thus adapt the assembled sections 10, 11 of the toe weight, to fit closely upon the hoof A.

Longitudinally in the weight block 10 a perforation is formed therethrough that alines with the perforation in the boss d, and down through these alined perforations the screw bolt 12 is inserted and screwed into the nut b' when the sections 10, 11 are to be connected together, said screw passing loosely through the lower wall of the weight block 10.

In application of the preferred form of the toe weight, the spur plate which is first to be attached to the hoof A, is imposed upon the hoof at its front face by forcing the spurs 11^a between the lower surface of the hoof A and a shoe B, that has previously been secured upon the hoof. The screws c' are now inserted into the hoof through the perforations in the spur plate, so as to fully embed their heads in the counter-sinks of the perforations, whereby the spur plate is rigidly secured upon the hoof. The weight block 10 is now mounted upon the spur plate, which will embed the boss d in the recess g, the attachment together of the main sections 10, 11 of the toe weight being completed by a screwed insertion of the threaded lower end of the screw bolt 12 into the nut b'.

In Fig. 5 the construction of the toe weight is shown in modified form, and comprises a weight block 10^a, substantially similar in form to the weight block 10, having a concave back surface for seated engagement with the hoof A′ of an animal. In the concave face of the weight block 10^a a recess h is formed, having a

deeper depression at a point near the lower edge of the id block as indicated at h' in Fig. 5. The peripheral vall of the recess h may have trefoil form to accommodate a like contour of a spur plate 13. The spur plate mentioned is formed with a flange that projects laterally from a rectangular boss 13^a, said flange having such a thickness that when seated in the recess h the rear surface thereof will be flush with the concave face of the weight block 10^a. The spur plate 13 is secured in place by three screws c^2, one appearing in Fig. 5, the perforations wherein the screws are passed through the spur plate being countersunk, so as to permit the embedment of the heads of said screws in the spur plate, as appears for one screw in Fig. 5. A recess is formed in the rear face of the boss 13^a, having a similar contour thereto and cutting through the lower edge of the spur plate 13, this recess receiving the upper portion of a spur piece 14, which is closely fitted therein. The spur piece 14 is formed with a wedge-shaped flange or spur 14^a, which projects rearwardly from the weight block 10^a when in position for service, so that it may be inserted between the lower surface of the hoof A', and the upper face of a shoe B' on said hoof. In a perforation i that extends from the front face of the weight block 10^a therethrough, at a point transversely central and a proper distance above the lower edge of said block, and that is countersunk in the outer face thereof, a clamping screw 15 is inserted, passing into alined threaded perforations in the wall of the boss 13^a and in the upper portion of the L-shaped spur piece 14, wherein the inner end of the clamping screw is firmly screwed. The screw 15 is held from becoming accidentally loosened by a set screw i', that is adjusted to impinge upon the head of the screw 15 when it is fully inserted. In the upper portion of the weight block 10^a a transverse slot m is formed, through which a leather strap, not shown, may be passed, so as to project therefrom at each side of the block, which strap may have engagement with a leather boot or the like frequently placed on the pastern joints of a horse, to prevent the shoes from interfering with said joints, and as such a detail does not constitute a feature of the invention, it is omitted from the drawings.

In Fig. 6 the toe weight shown is essentially the same in construction as that represented in Figs. 1 to 4, inclusive, but has a strap of metal such as appears at 16, hinged by one end upon the upper end of the weight block 10^b, and thence extends upward for a secured connection with a leathern boot on the leg of the animal whereon the toe weights are placed. It is to be understood that the spur plate shown in Fig. 6 is to be secured in place upon the hoof of the animal by screws, which pass through perforations in the spur plate, but are omitted from the drawings.

Having thus described our invention, we claim as new and desire to secure by Letters Patent:

1. A toe weight, comprising a weight block having a recess in its concaved rear face and a vertical perforation therein, a spur plate having a perforated laterally projected boss that is seated in the recess of the block, means for securing the spur plate on the hoof of an animal, a nut carried by the spur plate, and a screw bolt passing through the alined perforations in the weight block and in the boss, said bolt engaging with its threaded lower end the nut, whereby the block and plate are held clamped together.

2. A toe weight, comprising a spur plate having a concaved rear face, and screw holes near the edge thereof, spurs on the lower edge of the spur plate projected rearwardly therefrom, a boss on the front face of the spur plate having a vertical perforation therethrough, the spur plate also having a transverse opening below the boss, a weight block of substantially ovate form but having a concaved rear face that conforms with the like face on the spur plate, the weight block being vertically perforated in alinement with the perforation in the boss on the spur plate, a nut in the opening below the boss, and a screw bolt occupying the alined perforations in the block and boss, said bolt engaging its threaded lower end with the nut and thus clamping the weight block on the spur plate.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

MICHEAL McNALLEY.
EMIL WILLIAM BRETZ.

Witnesses:
JOHN PEARSON.
LOUIS SPELBRINK.