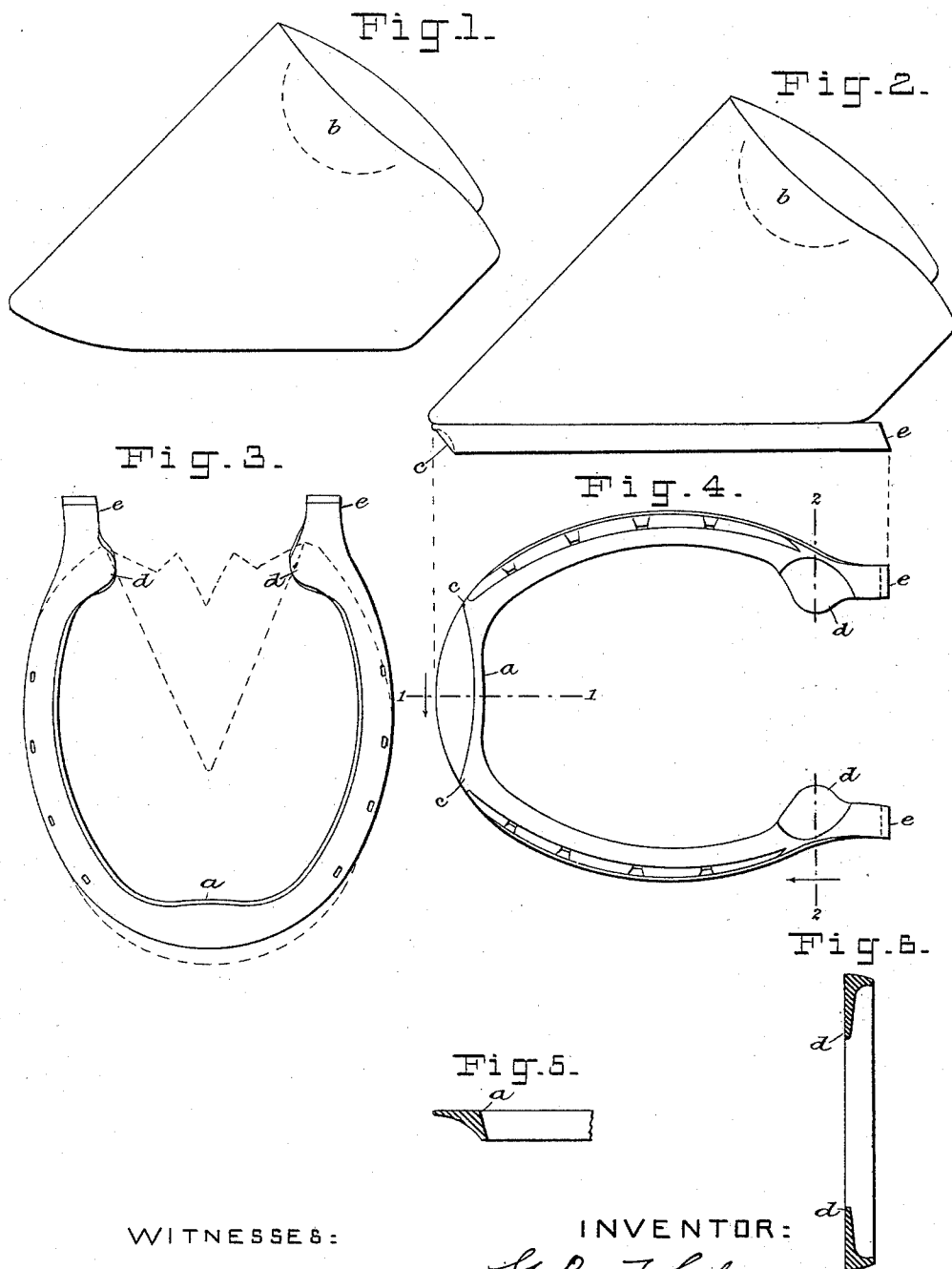


(No Model.)

G. T. CHAPMAN.
HORSESHOE.

No. 483,537.

Patented Oct. 4, 1892.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE T. CHAPMAN, OF WHITE PLAINS, ASSIGNOR OF ONE-HALF TO
WILLIAM HARVEY MERRITT, OF NEW YORK, N. Y.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 483,537, dated October 4, 1892.

Application filed May 1, 1889. Serial No. 309,146. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. CHAPMAN, a citizen of the United States, residing at White Plains, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Horseshoes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention comprises an improvement of horseshoes whereby the shoe of the correct shape for the normal natural hoof may be used without change of form for deformed hoofs, and at the same time the shoe may be made without variation in the area of cross-section of the bar at any point, which weights and otherwise affects the foot evenly all round and is an advantage in the manufacture.

My invention also comprises an improvement of the toe of the shoe by which the form and condition of the natural hoof is more accurately realized in a shod hoof than as shoes are commonly arranged; also, an improvement of the heel whereby an extension of the heel serves the purposes of heel-calks, all as hereinafter fully described, reference being made to the accompanying drawings, in which—

Figure 1 is a side elevation of a normal hoof, showing the shape that nature provides in the wear of use when not subject to the effects of a shoe. Fig. 2 is a side elevation of a normal hoof shod with my improved shoe. Fig. 3 is a plan view of the improved shoe with the outlines of a deformed hoof resting on it. Fig. 4 is a plan view of the shoe inverted. Fig. 5 is a longitudinal section of the shoe through the toe on the line 1 1, and Fig. 6 is a transverse section of the shoe through the heels on line 2 2.

In a large experience in shoeing horses I find that about all forms of hoofs may be comprehended in the two classes, long hoofs and round hoofs, the one being comparatively longer than round and the other more round than long, and in my invention I provide an average long shoe for all forms of the one class and an average round shoe for all forms of the other class, varying the same in size

only as the hoofs vary in size, but not in form, except in extreme cases of malformation.

The shoe shown in the drawings represents the correct form of the average natural long hoof. It is made of a bar or plate of uniform transverse dimensions throughout its length for uniformity of weight, bearing, and effect from heel to toe, and also to simplify the making of the shoe, with the under portion of the toe swaged backward, as at *a*, so as to approximate the natural rounded shape of the toe, which the wear of the bare hoof produces, as represented in Fig. 1, and preserve about the same radius of the joint *b*, and thus afford about the same facility of raising the foot prior to lifting it off the ground in the case of the shod hoof as in the bare hoof. This back-set is a little greater at the middle of the lower surface of the shoe than at the extremities *c*, as shown in Fig. 4, and the front surface of it is preferably concave, as represented in Fig. 5, to make said extremities and the front edge of the lower back-set portion prominent wearing portions to begin with and wearable longer than if curved to the shape produced by wear. The extremities *c* also afford two bearing-points sufficiently apart from each other to steady the foot laterally and prevent turning sidewise when rising on the toe. This back-set also widens the upper surface a little, so that a toe of shorter than the normal length will have support farther back; but it is to be noted that the widening is produced without increase of metal in the bar of the shoe. At the heels I swage up from the lower side flush with the upper surface and inwardly thereof the bearing-supports *d*, having suitable inward extension for affording support to contracted heels as well as the normal surface affords support for the normal heels without locally enlarging the cross-section of the bar or increasing its weight, said extensions being long enough to afford support for the contracted heels, and at the same time the shoe has the normal bearing-surface for the hoof of correct form, and these bearings do not in the least interfere with the use of the shoe on hoofs of proper form. I also make the shoe with other such inwardly-projecting bearings anywhere along

- it when needed for hoofs too much contracted at any other part for proper support on other parts of the shoe as well as at the heel and toe, and I also make the shoe with rear extensions *e* of the heel when it is not desired to use ordinary calks on the bottom, said extensions being about as long beyond the ordinary termination of the heel as or a little longer than a calk and having the bevel ends sloping from the top downward to form points of the lower corner of somewhat less than ninety degrees, which, being so projected and pointed, serve a better purpose as calks than the ordinary calks for high-speed purposes, because when a horse is making the long strides of high speed the heels have such downward pitch at the moment of first contact with the ground that these projections take firmer hold than the others and insure better footing.
- 20 What I claim, and desire to secure by Letters Patent, is—
1. The improved horseshoe made of a bar of uniform area of and substantially rectangular in cross-section throughout its length and without calks and having the swaged or hammered back-set *a* in the lower side of the toe approximating the shape of the toe of the natural unshod hoof, and also having the widened bearing-surface of the toe rearward, substantially as described.
2. The improved horseshoe made of a bar of uniform area of and substantially rectangular in cross-section throughout its length and without calks and having the inwardly-extended bearing-supports *d*, swaged up from the lower side flush with the upper surface,

as represented at the heel, substantially as described.

3. The improved horseshoe made of a bar of uniform area of and substantially rectangular in cross-section throughout its length and without calks and having the back-set *a* in the lower side of the toe and the inwardly-extended bearing-supports *d*, as represented at the heels, and being swaged up from the lower side flush with the upper surface of the shoe, substantially as described.

4. The improved horseshoe made of a bar of uniform area of and substantially rectangular in cross-section throughout its length and without calks and having the swaged or hammered back-set *a* in the lower side of the toe and the resultant widened bearing-surface of the toe backward, and also the prominent bearing-points at the extremities *c* of said back-set, substantially as described.

5. The improved horseshoe consisting of a bar of uniform area of and substantially rectangular in cross-section throughout its length and without calks and having plain—that is, uncalked—bottom, the prominent bearing-points at *c*, and the rear heel extensions of the bar, said bar having the bevel ends and projecting lower corners, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE T. CHAPMAN.

Witnesses:

W. J. MORGAN,
A. P. THAYER.