No. 737,849. PATENTED SEPT. 1, 1903.

T. F. JUDGE.

HORSESHOE.

APPLICATION FILED APR. 27, 1903.

NO MODEL.

Fig. 1.

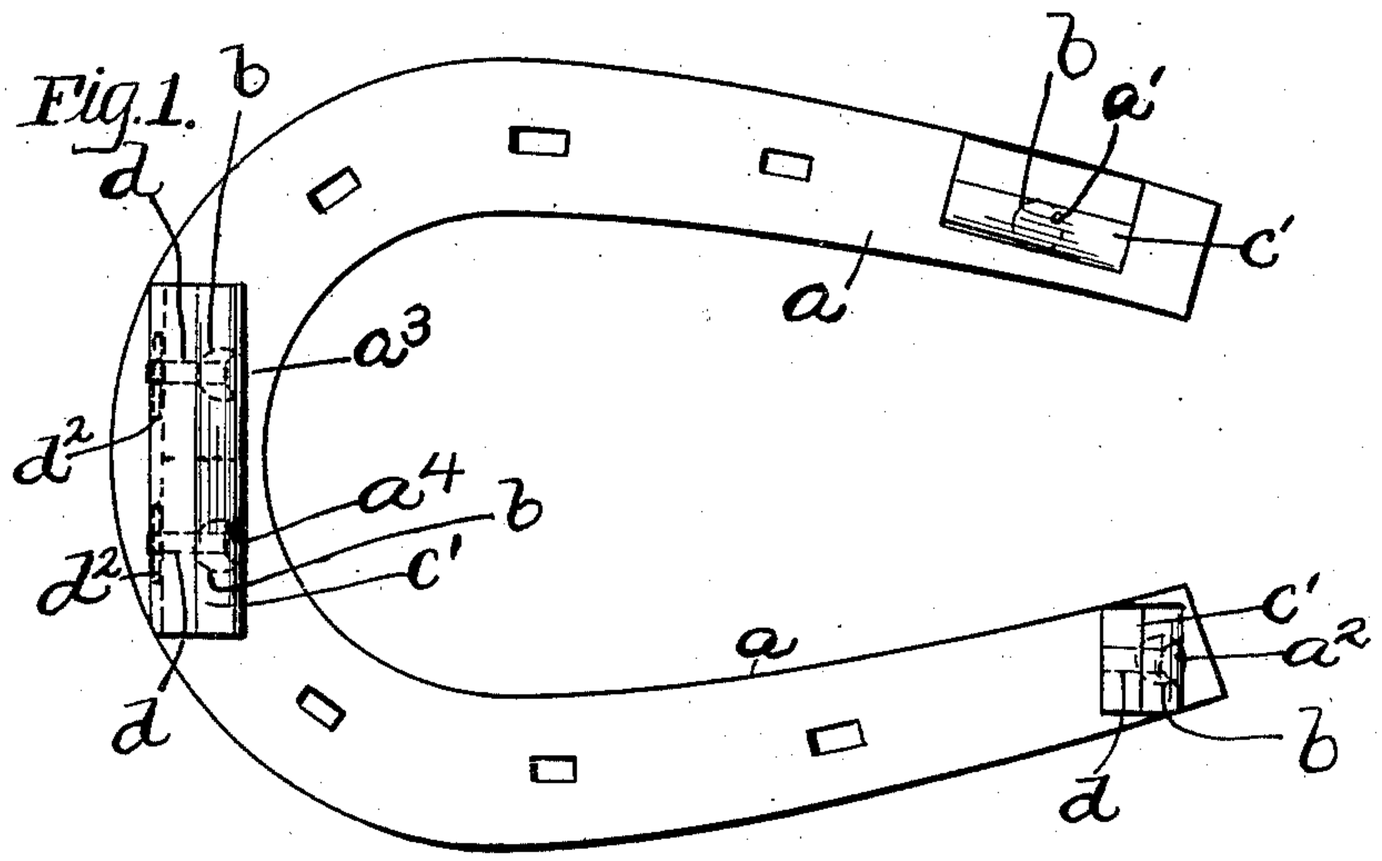


Fig. 2.

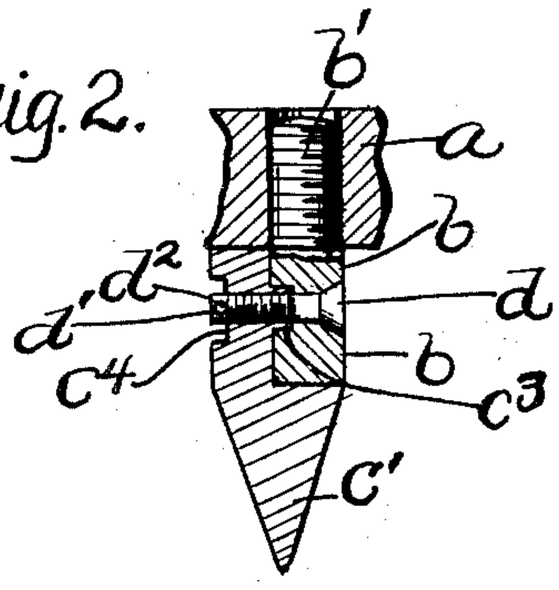


Fig. 3.

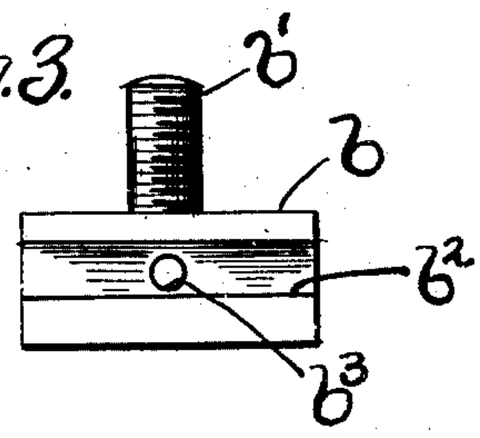


Fig. 4.

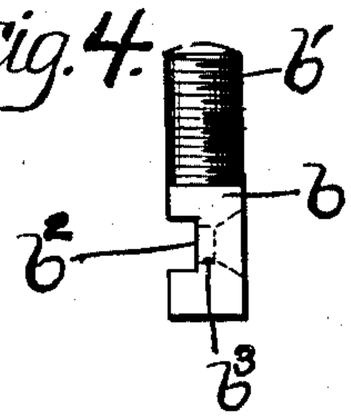
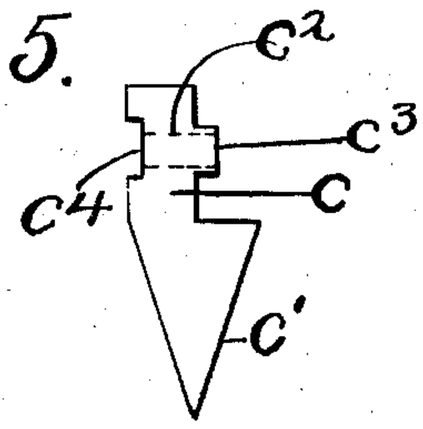


Fig. 5.



WITNESSES:
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BY
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No. 737,849. Patented September 1, 1903.

UNITED STATES PATENT OFFICE.

THOMAS F. JUDGE, OF CLEVELAND, OHIO.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 737,849, dated September 1, 1903.

Application filed April 27, 1903. Serial No. 154,397. (No model.)

To all whom it may concern:

Be it known that I, THOMAS F. JUDGE, a citizen of the United States of America, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Horseshoes; and I 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 pertains to make and use the same.

My invention relates to improvements in horseshoes, and especially to an improvement in a horseshoe for which Letters Patent were granted to me December 30, 1902, and numbered 716,901.

The object of my invention is to furnish a calk for horseshoes which may be readily attached to any description of horseshoes and easily detached therefrom for the purpose of sharpening or renewal without removing the shoe from the hoof of the horse and having such arrangement of parts that when it is secured to the shoe it will be perfectly rigid thereon and will not give under any strain to which it may be subjected.

My invention therefore consists in the features of construction and combination of parts hereinafter described in the specification, illustrated in the drawings, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan of the under side of a shoe embodying my invention. Fig. 2 is a fragmentary view showing a central section of one of the calks. Fig. 3 is a view of one of the calk supports or abutments detached. Fig. 4 is a side view of same. Fig. 5 is a side view of one of the calks detached.

Again referring to the drawings, *a* represents the plate which forms the body of a horseshoe of the usual shape and construction. In this plate are preferably formed four screw-threaded holes a', a^2, a^3, and a^4. The holes a' and a^2 are arranged at the respective sides of the shoe near the heel, and the holes a^3 and a^4 are arranged at the toe of the shoe. *b* represents the abutments or supports which form the means for mounting the calks proper. These abutments comprise shank portions b', which are screw-threaded and are adapted to screw into the screw-threaded holes in the shoe-plate. In the face of each abutment *b* is formed a longitudinal slot or keyway b^2. In each abutment *b* is formed a bolt-hole b^3, which extends through from face to face of the said abutment. Each calk comprises a body portion *c*, approximately equal in size to the abutment *b*, and a wedge-shaped head portion c', which is formed integral with the body portion *c* and arranged to extend over and abut against the top of the abutment to which the calk is secured. A screw-threaded hole c^2 is formed in the body portion *c* in line with the bolt-hole b^3 in the supporting-abutment. On the body portion *c* of each calk is formed a rib or key c^3, arranged to fit snugly in the keyway b^2, formed on its supporting-abutment. A bolt or screw *d*, having a hole or eyelet d' formed in its end, is passed through the bolt-hole b^3 in the abutment and the screw-hole c^2 in the calk, so as to secure the calk to the abutment. In the face of the body portion *c* and intersecting the axis of the screw-hole c^2 is formed a groove c^1. This groove forms a seat for a pin d^2, which is passed through the hole or eyelet d' in the end of the bolt or screw *d* in order to prevent the bolt from turning and becoming loose.

What I claim is—

1. The combination with a horseshoe-plate, of abutments, means for securing said abutments to said plate, keyways formed in said abutments, calks provided with keys arranged to fit into the keyways formed in said abutments and means for locking the said calks to said abutments.

2. The combination with a horseshoe-plate provided with a series of screw-threaded holes, of supporting members provided with screw-threaded shank portions arranged to screw into said screw-threaded holes in said shoe-plate, a keyway formed in the face of each supporting member, calks provided with keys arranged to fit into the keyways in the supporting members, screws securing said calks to said supporting members, and means for locking said screws against accidental displacement, substantially as described and for the purpose set forth.

3. The combination with a horseshoe-plate provided with a series of screw-threaded holes, of supporting members having screw-threaded shank portions arranged to screw

into said holes in said shoe-plate, a keyway formed in each of said supporting members, calks arranged to abut against and lap over said supporting members, keys formed integral with each of said calks and arranged to fit into the keyways in said supporting members, grooves formed in said calks, screws securing said calks to said supporting members, eyelets formed in said screws and locking-pins arranged in said grooves in said calks and passing through the eyelets in said screws, substantially as described and for the purpose set forth.

4. The combination with a horseshoe-plate provided with a series of screw-threaded holes, of supporting members provided with screw-threaded shank portions adapted to screw into the holes in said shoe-plate, a slot formed in each of said supporting members and extending longitudinally thereof, calks arranged to abut against and lap over said supporting members, ribs formed on said calks and arranged to fit into the slots in the supporting members, screws for securing said calks to said supporting members and means for locking said screws, substantially as described and for the purpose set forth.

In testimony whereof I sign the foregoing specification, in the presence of two witnesses, at Cleveland, Ohio.

THOMAS F. JUDGE.

Witnesses:
VICTOR C. LYNCH,
G. M. HAYES.