

No. 730,885.

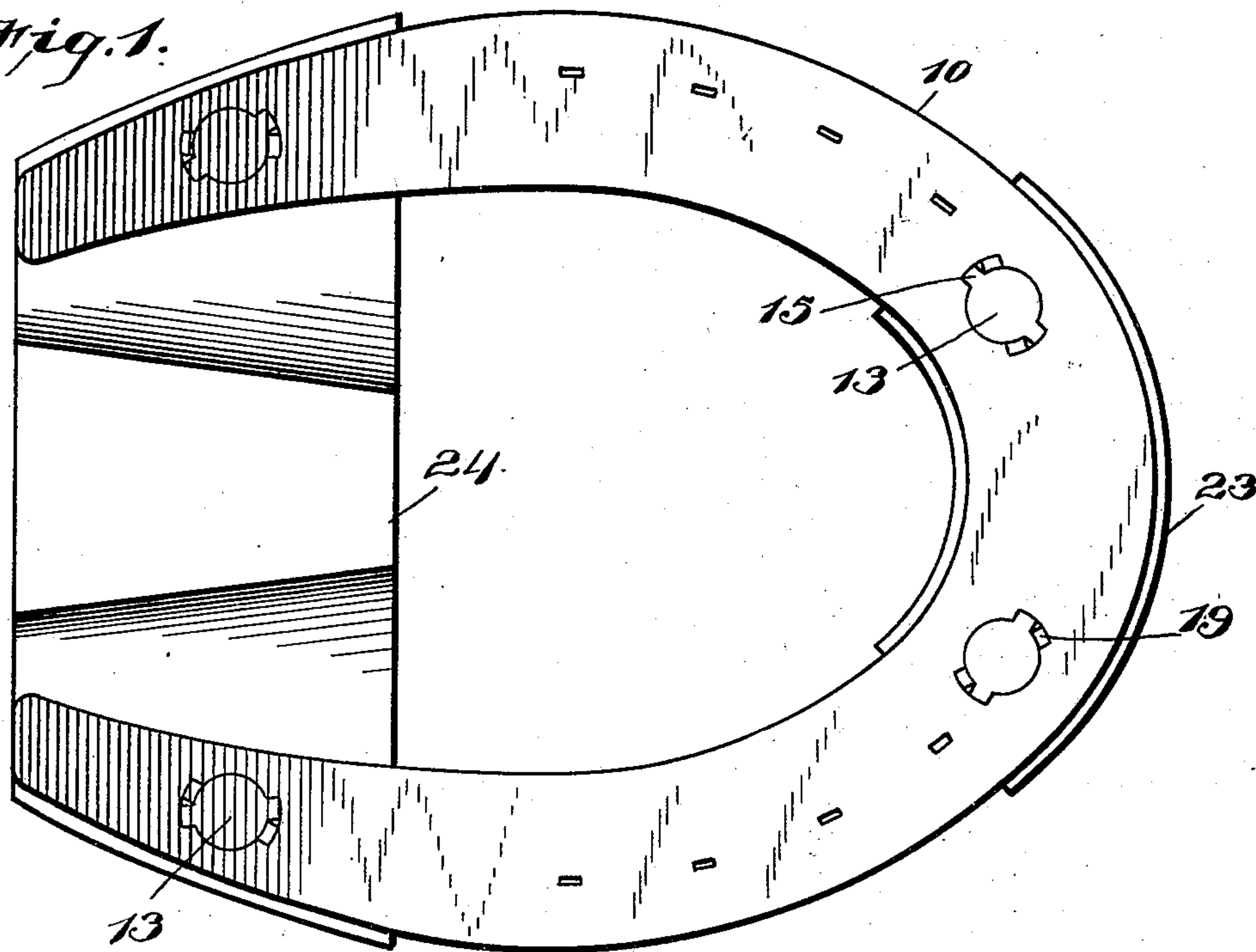
PATENTED JUNE 16, 1903.

J. DILLON.  
HORSESHOE.

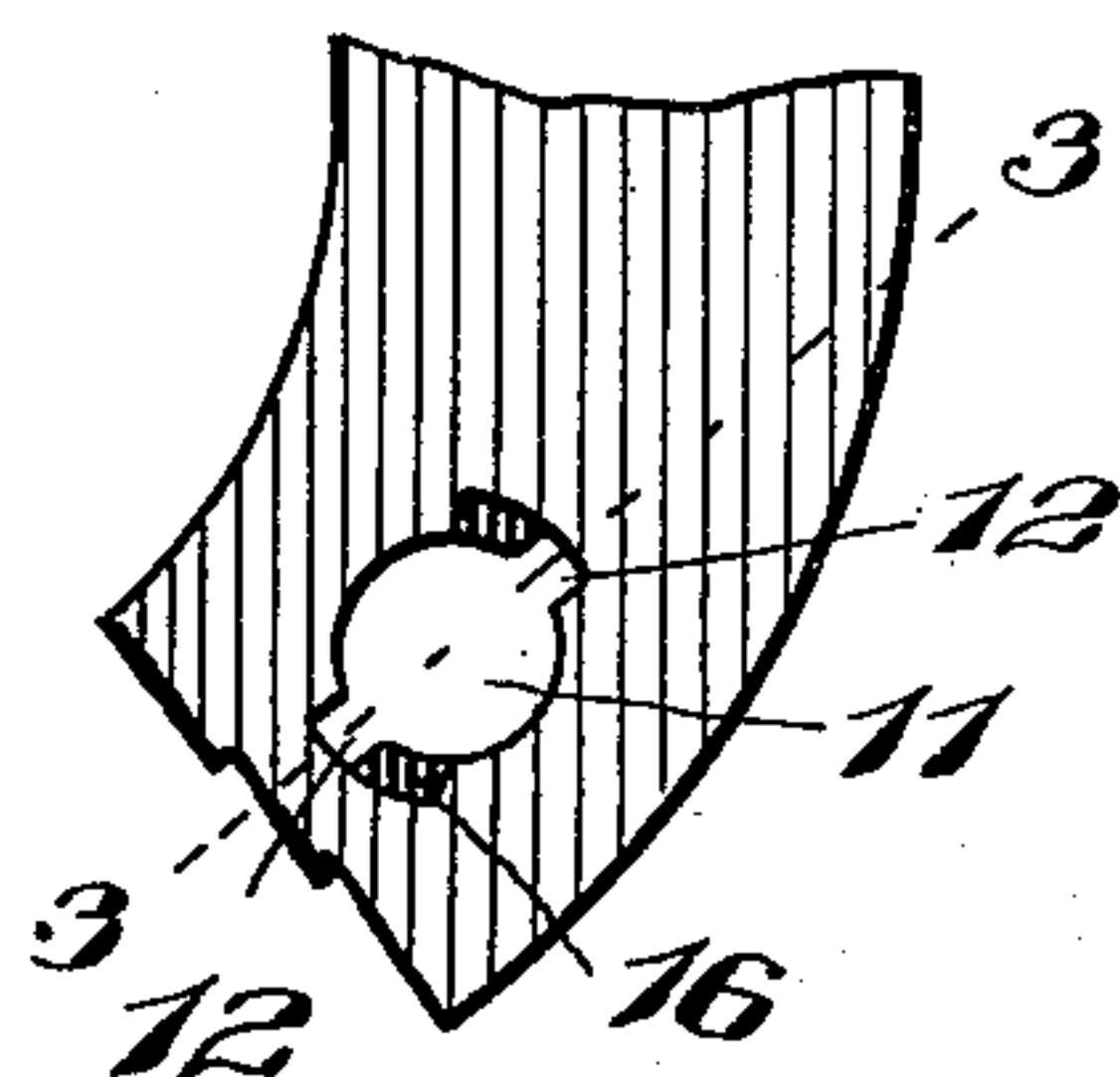
APPLICATION FILED DEC. 27, 1902.

NO MODEL.

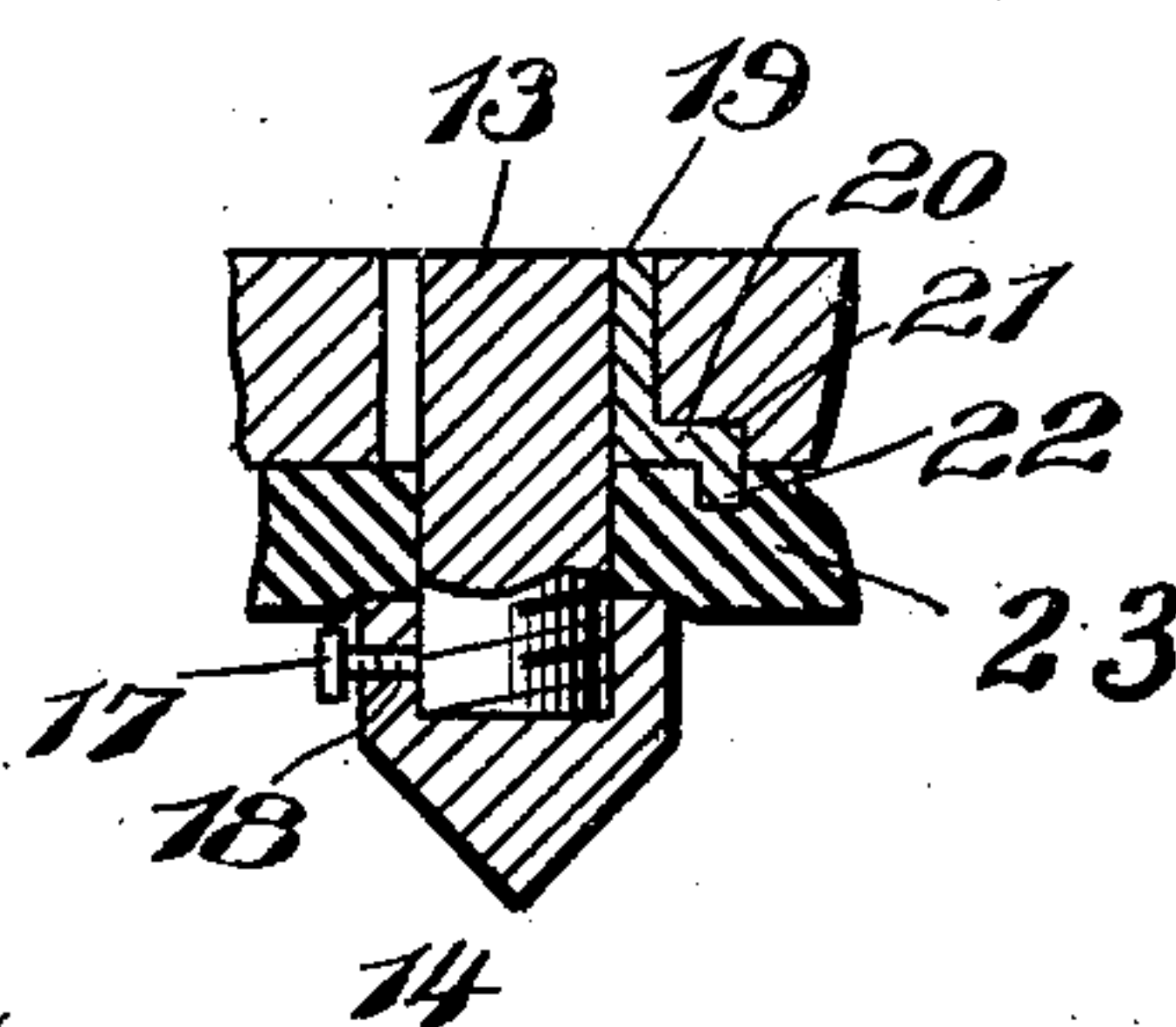
*Fig. 1.*



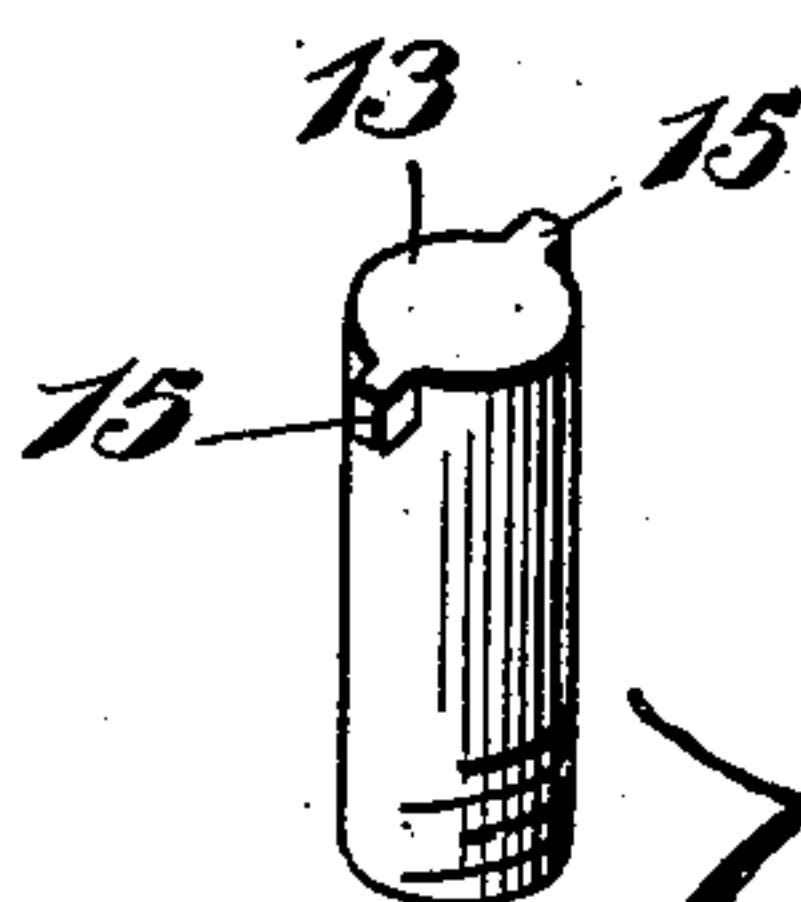
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses.

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# UNITED STATES PATENT OFFICE.

JOHN DILLON, OF NEW YORK, N. Y.

## HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 730,885, dated June 16, 1903.

Application filed December 27, 1902. Serial No. 136,785. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN DILLON, a citizen of the United States, residing at New York, in the county of New York, 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.

This invention relates to horseshoes, and more particularly to the calks and pads therefor; and it has for its object to provide a construction wherein the pads at the toe and heel of the shoe are held removably by means of the calks in such manner that both the calks and pads may be easily and quickly applied and removed and in which the calks may be used with or without the pads and may be applied and removed while the shoe is in place.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a top plan view of a horseshoe embodying the present invention. Fig. 2 is a top plan view of a portion of a shoe and showing the opening in which the stem of a calk is received and the shoulders upon which the lugs of the stem rest. Fig. 3 is a section on line 3 3 of Fig. 2 with the calk in place. Fig. 4 is a perspective view of the stem of the calk.

Referring now to the drawings, and more particularly to Figs. 1 to 4 thereof, there is shown a shoe 10, provided with a perforation 11 at each side of the heel, and in the wall of which perforation and at diametrically opposite points thereof there are longitudinally-extending grooves 12, there being two similar perforations at the toe of the shoe, one at each side of the medial line of the shoe. The perforations are the same form or shape and are equipped with calks of the same form, so that a description of one will suffice for all. For each of the perforations there is a calk including a stem 13, which is threaded at one end for engagement in the threaded socket of a head 14, the opposite end of the stem having radiating lugs 15 at diametrically opposite points, the dimensions of the stems and lugs being such that they will slidingly fit the

corresponding perforation and the grooves 12 thereof, respectively, one wall of each groove being cut away at the upper end of the perforation to form recesses into which the lugs will engage when the stem is rotated after being passed into the perforation until flush with the upper face of the shoe. When the lugs are in the recesses, they will lie above the bottoms or shoulders 16, which will prevent withdrawal of the stems until they shall have been reversely rotated to cause them to register with the grooves. After the stem is passed into place and rotated, as described, the head of the calk is screwed upwardly to impinge tightly against the bottom of the shoe and draw the lugs against the shoulders or bottoms of the recesses, the heads being held from unscrewing by locking-screws 17, which are engaged with threaded transverse perforations 18 in the heads to impinge against the threads of the stems. To prevent return rotation of the stem of the calk to register the lugs thereof with the grooves 12, a key 19 is provided, which after the stem has been inserted and rotated to its final position and before the head is put in place is inserted from the ground side in a groove 12, and by reaching to the upper face of the shoe, where it lies against the side face of a lug of the stem, prevents movement of the lug from the shoulder on which it lies. The key has a head 20 extending laterally therefrom and which engages in a recess 21 in the bottom of the shoe, and against which head the head of the calk rests to prevent the key from dropping from place. To permit of ready removal of the key when the head of the calk is removed, the head of the key has a depending lug 22, which projects below the lower face of the shoe and may be readily grasped to withdraw the key. It will be noted that with this construction the stems are applied from the under side of the shoe, and when the calks are to be removed the operation is reversed, so that the calk may be engaged and disengaged without removing the shoe from the hoof of the animal.

In connection with the shoe are shown toe and heel pads, which may be of rubber or other suitable material, disposed against the under face of the shoe prior to engagement of the heads of the calks with the stems, said



pads having perforations through which the stems are passed. The toe-pad is shown at 23 and the heel-pad at 24, the heel-pad having a central thickened portion which fits into the frog of the hoof. It will be understood that a single pad covering the entire bottom of the shoe may be used.

It will be understood that the toe and heel pads may be employed in connection with any of the different styles of calks and that other modifications may be made and any suitable materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

1. The combination with a horseshoe having perforations therein, the walls of which perforations have longitudinal grooves which are broadened laterally at their upper ends, of calks having stems engaged with the perforations and provided with lugs lying in the laterally-broadened portions of the grooves out of alinement with the latter, said lugs being movable through the grooves, keys engaged with the grooves and lying in the paths

of movement of the lugs in the directions of the grooves, and heads at the lower ends of the stems.

2. The combination with a horseshoe having perforations therein, the walls of which perforations have longitudinal grooves which are broadened laterally at their upper ends, of calks having stems engaged with the perforations and provided with lugs lying in the laterally-broadened portions of the grooves out of alinement with the latter, said lugs being movable through the grooves, keys engaged with the grooves and lying in the paths of movement of the lugs in the directions of the grooves, pads disposed against the under side of the shoe and through which the stems are passed, and heads removably engaged with the lower ends of the stems and impinging against the pads.

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

JOHN DILLON.

Witnesses:

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MARY H. REGAN.