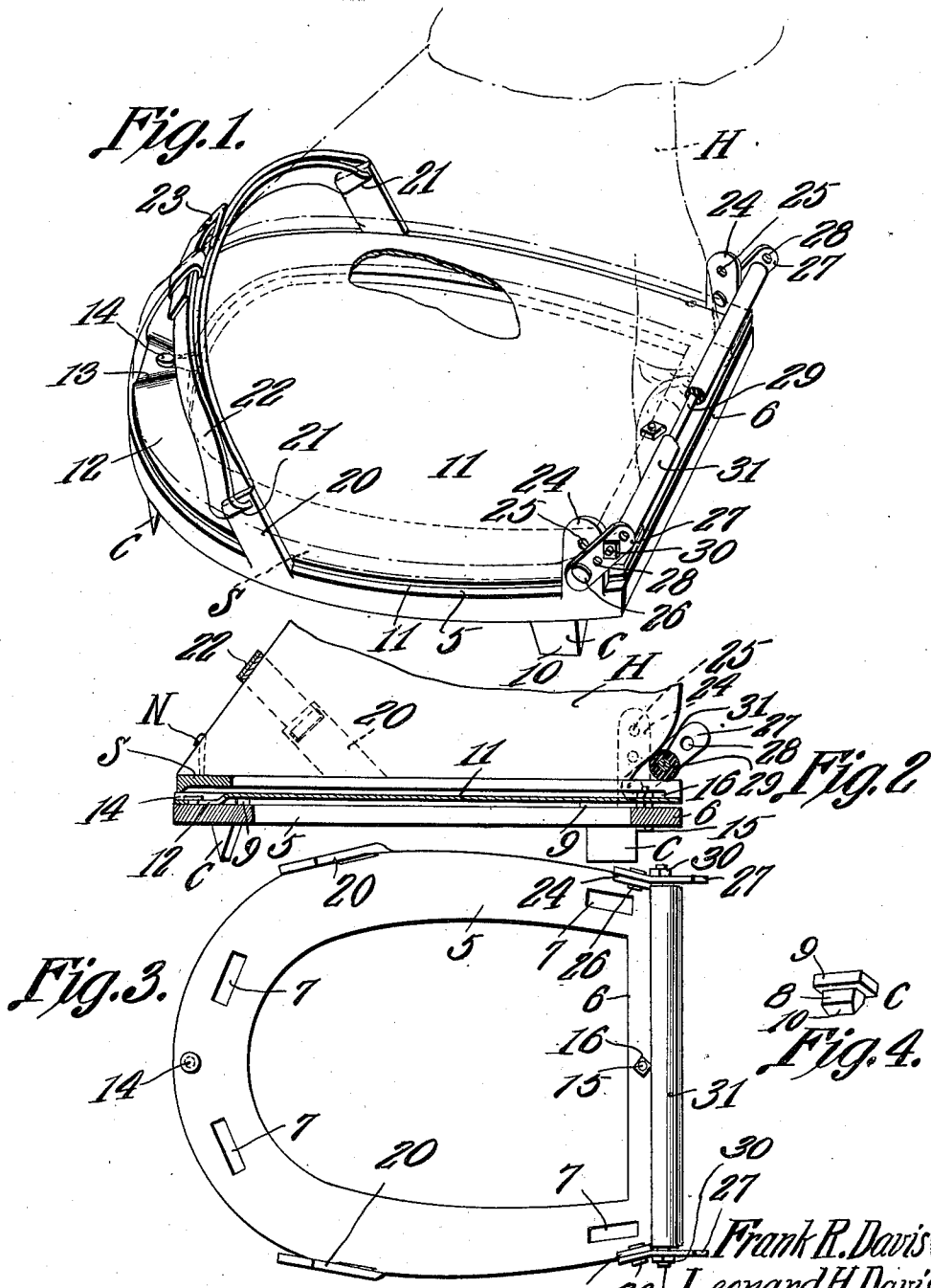


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HORSE BOOT.  
APPLICATION FILED JAN. 16, 1911.

996,566.

Patented June 27, 1911.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## HORSE-BOOT.

996,566.

Specification of Letters Patent. Patented June 27, 1911.

Application filed January 16, 1911. Serial No. 602,971.

To all whom it may concern:

Be it known that we, FRANK R. DAVIS and LEONARD H. DAVIS, citizens of the United States, residing at Washington, in the District of Columbia, have invented a new and useful Horse-Boot, of which the following is a specification.

This invention relates to farriery, and more especially to horse boots; and the object of the same is to produce a boot or overshoe which itself carries the calks and means for detachably holding the latter in the boot.

To this end the invention consists in the details of construction hereinafter more fully described and claimed, and shown in the drawings wherein:

Figure 1 is a perspective view of our improved boot in place on the horse's hoof which latter is shown in dotted lines. Fig. 2 is a central longitudinal section of the boot, with the hoof in full lines. Fig. 3 is a plan view. Fig. 4 is a detail of one of the calks in the form in which we prefer to make them.

In the drawings the letter H designates the hoof of the horse, and S is the shoe which is usually attached thereto by nails N, while C are the calks which it is desirable to apply to the shoe in slippery weather. These are sometimes detachably attached thereto, but more commonly it is the practice to form them as integral parts of the shoe itself. We lay no claim in this case to the specific shape of the calk, further than as it coacts with the boot and the calk-retaining means, for it will be clear that almost any form of calk might be employed so long as it has an enlarged head.

Coming now more particularly to the present invention, the body 5 of our boot is by preference formed in the shape of a horse shoe whose rear ends are connected by a cross bar 6, and both body and bar are by preference flat on their upper and lower faces and as thick as may be necessary for the strength required. Vertically through the body at proper intervals are formed holes 7, herein shown as rectangular in shape in order to accommodate the shanks 8 of the calks C illustrated in Fig. 4, and these calks have enlarged heads 9 which preferably follow the contour of the shanks and have flat upper faces, while the points 10 of the calks are sharpened as shown or

in any approved way. It will be obvious that calks of this type may be dropped through the holes in the body 5, and if they are properly made they will fit removably therein and will be supported in place by the projecting edges of their heads 9 which rest upon the upper face of the body around its holes 7, while the points 10 of the calks project downward beyond the lower face of the body. With this body we use a retaining device consisting of a preferably flat plate 11 conforming in contour with that of the body and having its front end formed with a key-hole opening 12 around which the material of the plate is depressed as shown at 13.

The numeral 14 designates a headed stud, such as a rivet, screw, or bolt rising from the body 5 preferably at its front end; and 15 is a bolt preferably passing upward through the center of the cross bar 6 and receiving a nut 16 on its upper end. In putting the retaining plate in place, its key-hole slot or opening 12 is passed over the stud 14 and the small end thereof engaged under the head of such stud; this motion bringing the plate to the rear so that a hole properly formed therein can be dropped over the bolt 15, after which the nut 16 is applied and screwed home. It is to be understood that this retaining device is thus applied in order to bear upon the heads 9 of the calks C to hold them in the holes 7 in the body 5, but when they are to be removed as for sharpening or repair, the retaining device is first removed and then the calks lifted out of place and repaired or replaced by others.

We also claim novelty for the specific construction of the means employed for holding this improved boot upon the hoof. At each side of the body 5 we form an upstanding ear 20 preferably inclined to the front and through this ear is a slot 21 to receive a strap 22 which passes obliquely forward and upward over the inclined front part of the hoof and is looped back upon itself and its extremities connected by a buckle 23. At each side of the body 5 and near its rear end we form an upstanding lug 24 provided with a number of holes 25; and pivoted in these holes as by rivets or bolts 26 are links 27 themselves having a series of holes 28. Through a pair of the latter passes a long rod 29 whose extremities are threaded to re-

ceive nuts 30 preferably disposed outside the links 27, and upon this rod between said links is disposed a cushion 31 here illustrated as a rubber tube. It will thus be seen that 5 the pivot bolts 26 can be adjusted into any pair of the holes 25 to raise or lower the inner ends of the links 27, and the long rod 29 can be adjusted into any pair of the holes 28 so as to lengthen or shorten its distance 10 from the pivot; and these means are convenient for adapting the device to hoofs of different shapes and to horse shoes of different thicknesses.

From this description it will be obvious 15 that our invention consists of a horse boot having means for detachably retaining the calks, and means for permitting its detachable connection with the hoof and the horse shoe. The insertion and removal of the 20 calks has already been explained. To apply the boot to the hoof, it is slipped over the latter from the front so that the plate passes beneath the horse shoe, the links 27 being at this time deflected to the rear into 25 a nearly or quite horizontal position. When the boot has been moved to the rear until the links can be swung upward around their pivots 26, the cushioned rod 29 is raised and passed over the rear ends of the horse shoe, where it should fit closely in place. 30 In order to make it fit, the pivot bolts 26 may be adjusted in the holes 25, or the long rod 29 may be adjusted in the holes 28, or both; but the purpose is that the rod with its cushion 31 shall swing close over the 35 rear ends of the horse shoe. After it has been swung into place, the strap is tightened by means of the buckle 23, and the tension so set up draws the entire device forward 40 slightly beneath the horse shoe S and the rod is borne in under the heels of the hoof although the latter are not injured by reason of the presence of the cushion 31. In order to remove the boot from the shoe, the operation is reversed by first loosening the buckle 45 23, and then sliding the entire device to the rear.

The utility of such a horse boot is obvious. It can be quickly applied to the hoofs of a 50 horse who is smooth shod, and as quickly removed when the season of ice weather is past. In latitudes where ice and snow prevail for a considerable period, the boots are removed from time to time, and the retaining plates are lifted out of place so that the 55 calks C can be replaced by others which have been sharpened, after which the retaining plate is replaced and the entire boot reattached to the hoof.

What is claimed as new is:—

1. In a horse boot, the combination with 60 the body conforming with the shape of the horse shoe and adapted to stand beneath it, slotted ears at the sides of said body inclining forward, and upright lugs rising 65 from the sides of the said body near its rear end and each provided with a series of holes; of a strap and buckle connecting the slots in said ears, a pair of links adjustably 70 pivoted at their inner ends in a pair of said holes, and a cushioned rod connecting said links and adapted to swing over the rear end of the horse shoe.

2. In a horse boot, the combination with 75 the body conforming with the shape of the horse shoe and adapted to stand beneath it, slotted ears at the sides of said body inclining forward, and upright lugs rising from 80 the sides of the said body near its rear end and each provided with a series of holes; of a strap and buckle connecting the slots in said ears; a pair of links each having a series 85 of holes in its body, a bolt passing through the inner end of each link and into one of the holes in the lug at that side of the body, and a long rod having threaded extremities 90 passing through a pair of the holes in said links and receiving nuts on its outer ends, the rod adapted to swing over the rear end of the horse shoe.

3. In a horse boot, the combination with 95 a horse-shoe shaped body having rectangular upright openings through it, a cross bar connecting its rear extremities, lugs and ears rising from it, an adjustable strap connecting the ears and adapted to pass over 100 the forward portion of the hoof, links pivoted to said lugs, and a rod connecting the links and adapted to pass over the rear of the horse shoe; of calks whose shanks are 105 adapted to fit said openings, whose points are sharpened, and whose upper extremities are headed and flat, a retaining plate conforming with the contour of the body and shoe and adapted to rest upon said head, 110 said plate having a keyhole opening near its forward end, a headed stud rising from the body and removably engaging said opening, and a bolt passing through said cross bar and the rear of the plate.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

FRANK R. DAVIS.  
LEONARD H. DAVIS.

Witnesses:

N. L. COLLAMER,  
F. B. OCHSENREITER.