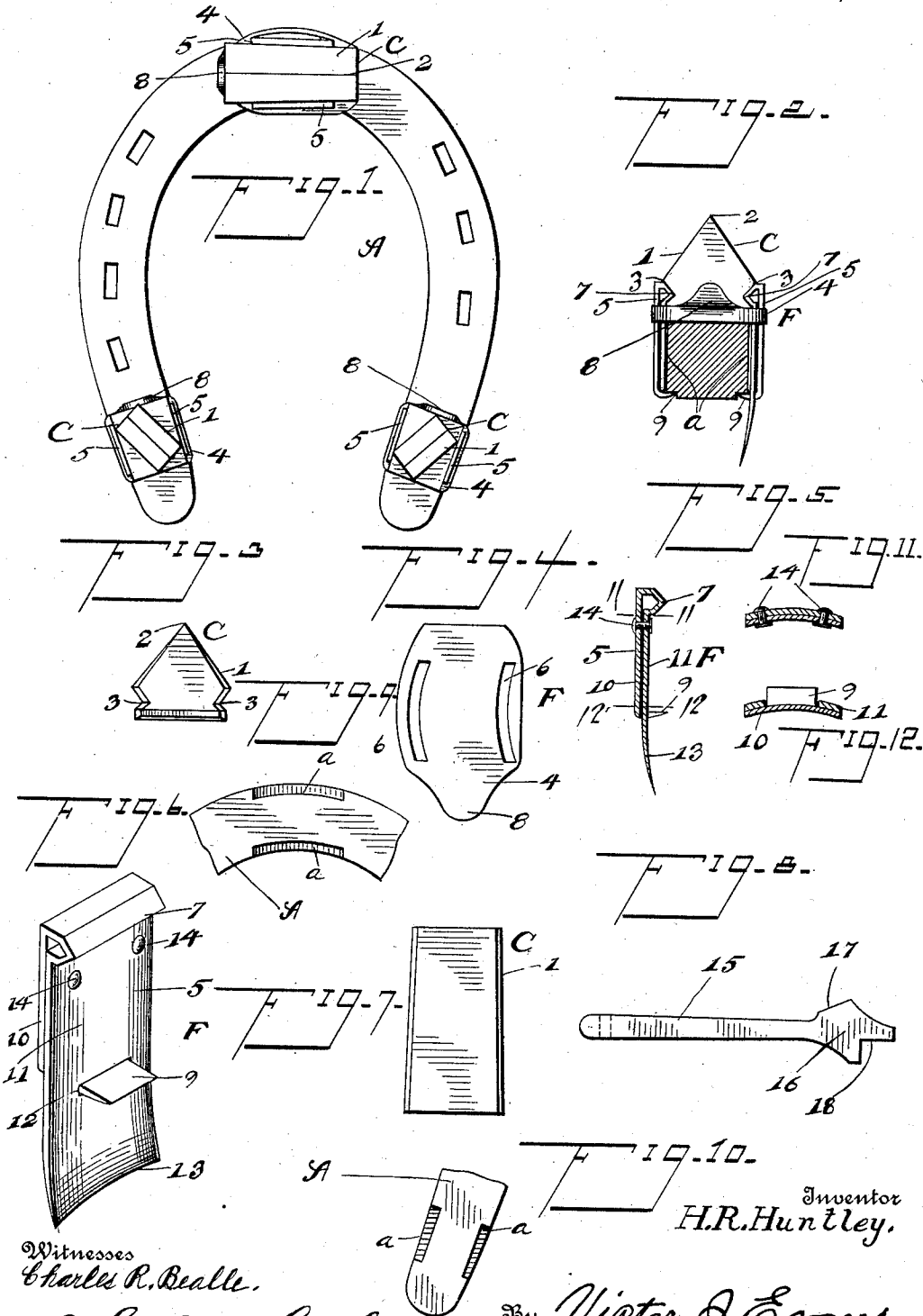


H. R. HUNTLEY.
HORSESHOE AND CALK.
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Patented Nov. 5, 1912.



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HORSESHOE AND CALK.

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To all whom it may concern:

Be it known that I, HERBERT R. HUNTLEY, a citizen of the United States of America, residing at North Sudbury, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Horseshoes and Calks, of which the following is a specification.

This invention relates to improvements in horse shoes and has particular application to detachable calks for such shoes.

In carrying out my present invention, it is my purpose to provide a horse shoe wherein the calks may be attached to and detached therefrom at will, the invention also involving a novel form of fastening device adapted to receive the calk and secure the same to the shoe, such fastening device being detachably associated with the calk and the shoe.

Furthermore, I aim to provide a horse shoe in which various styles of calks may be utilized, according to the condition of the pavements or roadway, such calks being capable of attachment to the shoe and detachment therefrom without materially changing the construction of the shoe proper.

It is also my purpose to provide a fastening device for horse shoe calks by means of which the calks may be attached to the shoe and detached therefrom at will, the fastening device being constructed in such manner as to embrace few parts and these so constructed and arranged as to render the liability of detachment between the calk and shoe practically nil.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter set forth in and falling within the scope of the appended claims.

In the accompanying drawing there has been illustrated one practical embodiment of my invention and in this drawing Figure 1 is a bottom plan view of a horse shoe equipped with the present invention. Fig. 2 is a transverse sectional view through the toe of the shoe, the calk and fastening device being shown in elevation. Fig. 3 is an end elevation of a calk. Fig. 4 is a top plan view of the main plate of the fastening device. Fig. 5 is a detail sectional view of one of the clamping members of the fastening

device. Fig. 6 is an enlarged perspective view of one of the clamping members of the toe fastening device. Fig. 7 is a bottom plan view of one of the calks. Fig. 8 is a side elevation of a tool. Fig. 9 is a fragmentary top plan view of the toe of the shoe. Fig. 10 is a fragmentary top plan view of one of the heels of the shoe. Fig. 11 is a section on the line 11—11 of Fig. 5, and Fig. 12 is a section on the line 12—12 of Fig. 5.

Similar reference characters designate like parts throughout the several views.

Referring now to the accompanying drawing in detail, a conventional form of horse shoe is shown at A which in the present instance is provided with cut out portions *a, a* at the opposite edges of the upper surfaces of the toe of the shoe and similar portions at the edges of the upper portions of the heels of the shoe, such cut out portions being designed to facilitate the attachment of the fastening device to the shoe in a manner to be presently described.

The calks of the shoe are designated by the letter C and these calks may be attached to the shoe and detached therefrom at will by means of the fastening devices F. Each calk C, in the present instance, consists of a longitudinal tapering base portion 1 of dovetail shape in cross section and provided with the usual biting edge 2, substantially V-shaped grooves 3 being formed in the opposite longitudinal sides of the base portion 1 to give such portion its dovetail configuration.

The fastening devices F, in the present embodiment of my invention, each comprises a main plate 4 designed to snugly engage the lower surface of the shoe at the heel or toe portion of such shoe and of a width slightly greater than that of the shoe, and clamping members 5, 5 which members are adapted to be passed through slots 6, 6 formed in the main plate 4 adjacent the longitudinal edges of such plate and exteriorly of the sides of the shoe. The clamping elements 5 of each fastening device are formed at one extremity to provide substantially V-shaped lugs 7, 7 which lugs project in relatively opposite directions and cooperate with the main plate 4 to form a tapering dovetailed groove into which the dovetailed base 1 of the calk C may be inserted, the plate 4

at the relatively wide end of such groove being provided with a lip 8 adapted to be bent up into contact with the proximate end of the calk so as to prevent longitudinal movement of such calk subsequent to the same being inserted in the groove formed by the component parts of the fastening device. The opposite or free ends of the clamping members 5 are intumed to provide lips 9, 9 which latter are designed to engage in the cut out portions *a, a* of the shoe so as to securely hold the fastening device to the shoe and prevent accidental lateral movement of such device.

Each clamping member 5 is preferably formed of a single strip of metal bent upon itself to form the lugs 7 from which extend arms 10 and 11, the former being bent upon itself to provide a lip 9 which lip is projected through a transverse slot 12 formed in the arm 11 and this latter arm with its respective clamping member when utilized on the exterior side of the toe of the shoe, is extended to form a clip 13 for a purpose well understood, the arms 10 and 11 of the respective clamping elements being fastened together through the medium of rivets 14 or the like.

If desired additional fastening devices and calks may be utilized at the sides of the shoe between the toe and heel thereof, in the event of the shoe being applied to a relatively heavy draft animal.

In Fig. 8 I have shown a form of tool which may be utilized for the purpose of forming cut out portions *a* in the shoe, this tool comprising in this instance a handle 15 and a head 16 provided with an impact surface 17 and a cut out portion 18, the walls of which portion are adapted to engage the meeting edges of the sides and top of the shoe, when the shoe is being formed, so that the impact surface 17 may be struck with a hammer or the like instrument to form the indentations or cut out portions *a* in the respective parts of the shoe.

From the foregoing description taken in connection with the accompanying drawing, the construction and mode of employing my invention will be readily understood by those skilled in the art to which this invention appertains, and it is to be understood that, although I have shown and described one preferred form of my invention by way of illustration, I do not limit myself to the exact details of construction herein described and delineated, as modification and variation may be made within the scope of the

claims and without departing from the spirit of my invention.

I claim:

1. The combination with a horse shoe, of a calk detachably associated with said shoe and provided with a dovetailed base portion, of a fastening device comprising a main plate adapted to engage the shoe and provided with elongated slots, clamping elements arranged within said slots and provided with V-shaped lugs cooperating with said plate to form a tapering dovetailed slot adapted to receive the dovetailed base portion of said calk, said fastening device being detachably associated with the calk and the shoe.

2. The combination with a horse shoe, of a calk detachably associated with said shoe and provided with a base portion, a fastening device comprising a main plate adapted to engage the shoe and provided with elongated slots, and clamping elements arranged within said slots and provided with lugs cooperating with said plate to form a slot adapted to receive the base portion of said calk.

3. The combination with a horse shoe provided with cut out portions at the opposite edges of the upper surfaces of the toe and heels thereof, of calks detachably associated with said shoe and each provided with a base portion, a fastening device for each calk comprising a main plate adapted to engage the shoe and provided with elongated slots, clamping elements arranged within said slots and provided with V-shaped lugs cooperating with said plate to form a slot adapted to receive the base portion of said calk, and lips on said clamping elements and adapted to engage the respective recesses in the shoe.

4. A fastening device for horse shoe calks comprising a main plate adapted to engage the shoe and provided with elongated slots, and clamping elements arranged within said slots and each comprising a single strip of metal bent upon itself to form a lug, arms extending from each lug, one of said arms being bent upon itself to form a lip, said lugs and plate cooperating with one another to provide a calk receiving slot.

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

HERBERT R. HUNTLEY.

Witnesses:

HIRAM HAYNES,

CHESTER H. HAYNES.