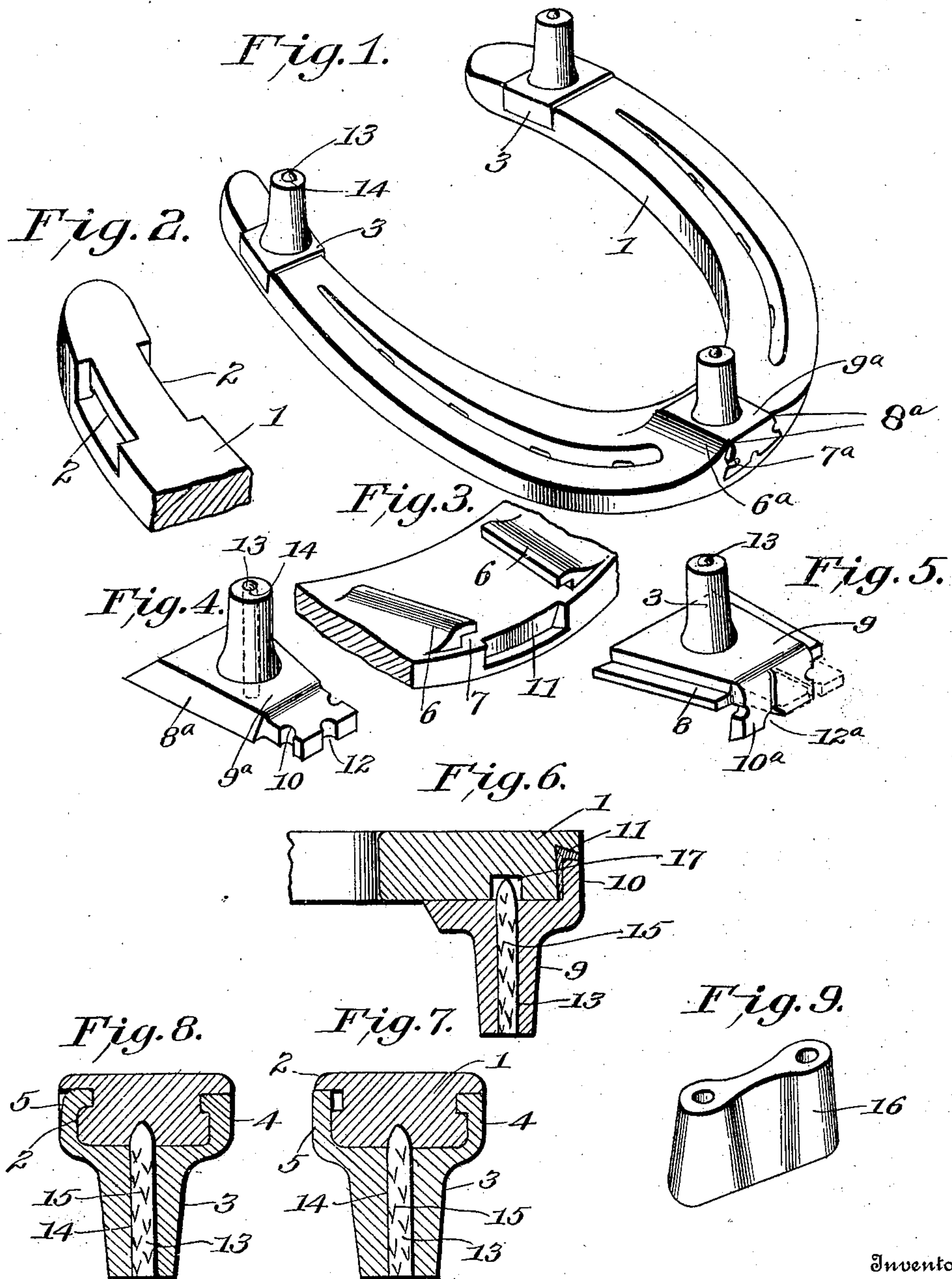


No. 876,666.

PATENTED JAN. 14, 1908.

D. STONE.
HORSESHOE CALK.
APPLICATION FILED APR. 9, 1907.



Inventor

Dudley Stone

Witnesses

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UNITED STATES PATENT OFFICE.

DUDLEY STONE, OF NORTH LIBERTY, IOWA.

HORSESHOE-CALK.

No. 876,666.

Specification of Letters Patent.

Patented Jan. 14, 1908.

Application filed April 9, 1907. Serial No. 367,144.

To all whom it may concern:

Be it known that I, DUDLEY STONE, citizen of the United States, residing at North Liberty, in the county of Johnson and State of Iowa, have invented certain new and useful Improvements in Horseshoe - Calks, of which the following is a specification.

This invention contemplates certain new and useful improvements in horseshoe calks, and the invention has for its primary object toe and heel calks for the horseshoe that may be readily secured in place and detached whenever necessary, so as to be dressed or replaced by new ones, and the invention also has for its object a simple and durable construction of calk which may be cheaply manufactured and which will have good wearing qualities.

The invention consists in certain constructions and arrangements of the parts that I shall hereinafter fully describe and then point out the novel features in the appended claims.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of the horseshoe provided with my improved calks; Fig. 2 is a detail sectional perspective view of the heel end of the shoe; Fig. 3 is a similar view of the toe end of the shoe; Fig. 4 is a detail perspective view of one form of the toe calk; Fig. 5 is a similar view of another form of the toe calk embodying the invention; Fig. 6 is a longitudinal sectional view through the toe portion of the shoe; Figs. 7 and 8 are transverse sectional views taken through the heel portion of the shoe and illustrating the manner of clenching the calk to the shoe; and, Fig. 9 is a detail perspective view of another form of calk employed.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings, the numeral 1 designates a horseshoe, the heel portions of which are provided on opposite sides with square shouldered rabbets 2 and with which the heel calks 3 are adapted to engage. In its initial formation, the heel calk 3 is formed with two lugs 4 and 5. One of these is provided on its inner side with a recess of right

angle formation in cross section, while the other extends comparatively straight, although it may be bent slightly inward as illustrated in the drawings. To attach this heel calk, the lug 4 is first engaged with the square shouldered rabbet 2 on the inner side of the shoe and the outside lug is then driven tight into the opposite rabbet so that the similar square rabbet on said lug will hook into the rabbet and the calk be effectively clenched to the shoe.

The toe portion of the shoe is formed with two spaced flanges 6 which may be provided with rabbeted inner walls 7 into which the square shoulders 8 of the toe calk 9 are adapted to be slipped. Or, as illustrated in Fig. 1, the flanges there designated 6^a may be provided with dove-tailed inner walls 7^a, and the calk 9^a being provided with correspondingly shaped shoulders 8^a designed for engagement with the dove-tailed flanges 6^a. Preferably the flanges 6 and 6^a converge towards the front of the shoe as shown.

The toe calk 9 or 9^a is provided with a projecting lip 10 adapted to be bent down over the front edge of the shoe and be driven into a recess 11 in said edge. The said lip is formed with a notch 12 in its edge, so that a punch or sharpened tool may be inserted therethrough into the recess 11 whenever it is desired to unclench the lip to detach the toe calk. If desired, as illustrated in Fig. 5, this lip there designated 10^a may be composed of two distinct sections so as to facilitate the bending operation, the slit between the two sections forming at its outer end the notch 12^a for the unclenching operation.

In order to increase the wearing qualities of the shoe, the tread portions may be composed of steel pins 13. To this end the calks are formed with bores 14 through which the pins are adapted to be driven, and the pins are of such length that when driven through the bores their comparatively blunt ends will project slightly from the outer ends of the calks, while the opposite ends of the calks will be driven into the body of the shoe, so as to assist in holding the shoe, as well as to prevent the pin itself from becoming detached. The shoe is preferably formed with apertures to receive the inner ends of the pins, and such ends are preferably roughened or serrated as indicated at 15 to insure a solid engagement. Each calk may be provided with one projecting pin or a pair of pins may be employed in which event the

calk is constructed preferably in the form illustrated in Fig. 9 and designated 16. It will be understood that if one or more of these pins are driven into the metal of the shoe at the toe portion and through the toe calk, it would tend to prevent the detachment of said toe calk. To avoid this, the toe portion of the shoe is preferably provided with a slot or depression 17 deep enough to receive the inner projecting end of the pin without the latter puncturing the metal of the shoe.

From the foregoing description in connection with the accompanying drawings, it will be seen that I have provided a very simple and efficient construction of horse-shoe calk which possesses the characteristic of durability, as the steel pins will take most of the wear and protect the body portions of the calks that are formed of relatively soft metal.

As seen best in Figs. 7 and 8, when the lug 5 is driven tight into the rabbet of the shoe, it will extend inwardly to some extent so as to leave a space at the outer side of the rabbet as indicated in Fig. 8, so that a chisel may be inserted at this point to disconnect the calk whenever desired. The projecting lip which is adapted to be bent down over

the front edge of the shoe is preferably a little thicker at its outer edge than where it is connected to the calk, and the recess 11 is accordingly formed so that in the operation of bending, the lip will draw the calk tightly into the flanges.

The lip may be formed at its side edges with notches for the reception of a punch to bend it upwardly and disengage the calk in addition to the recess at the outer edge of the lip.

Having thus described the invention, what is claimed as new is:

A horseshoe provided at its toe portion with spaced flanges having locking walls, and a toe calk provided with corresponding shoulders adapted to be slipped between and engaged with said flanges, said toe calk being formed with a projecting lip adapted to be bent over the outer edge of the shoe, and the shoe being formed at its front edge with a recess for the reception of said lip, the said lip being provided at its edge with a notch.

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

DUDLEY STONE. [L. s.]

Witnesses:

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