

(No Model.)

J. RUSSELL.  
HORSESHOE.

No. 428,231.

Patented May 20, 1890.

Fig: 1.

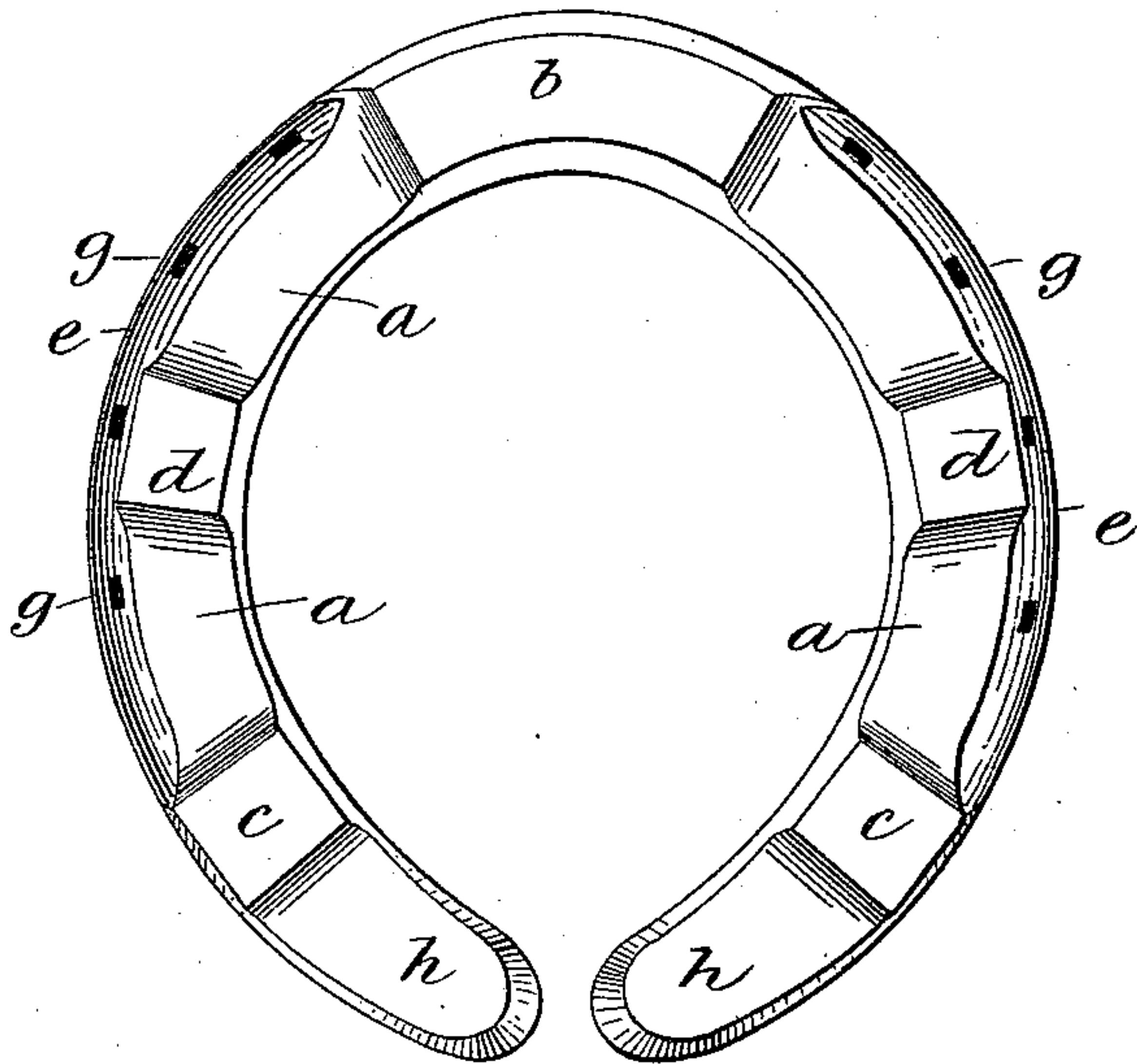


Fig: 2.

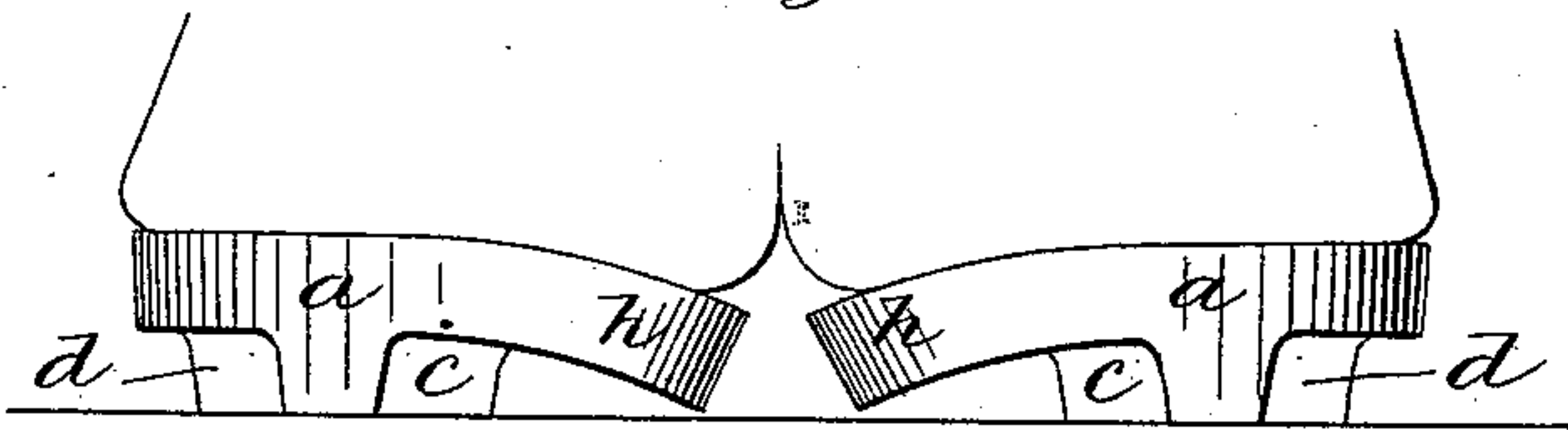


Fig: 3.

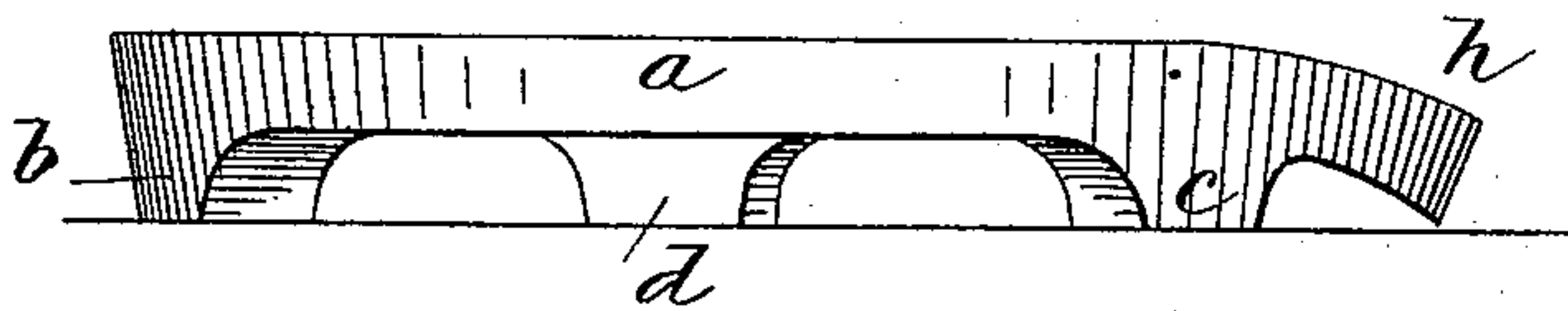
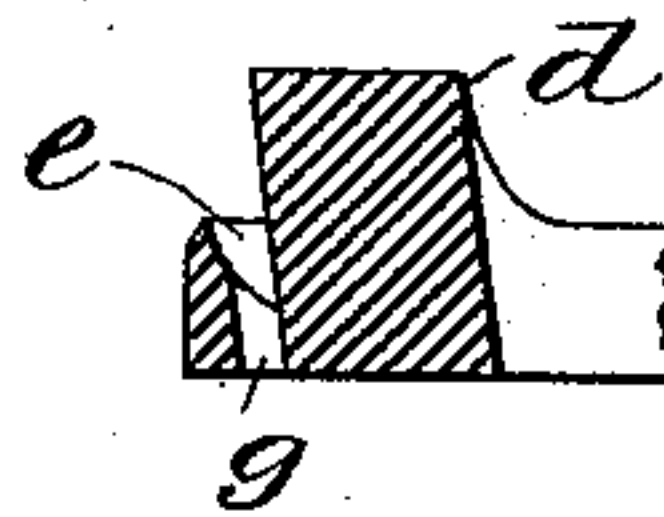


Fig: 4.



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# UNITED STATES PATENT OFFICE.

JACOB RUSSELL, OF BROOKLYN, NEW YORK.

## HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 428,231, dated May 20, 1890.

Application filed April 22, 1889. Serial No. 308,069. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB RUSSELL, a citizen of the United States, residing in Brooklyn, Kings county, New York, have invented certain Improvements in Horseshoes, of which the following is a specification.

My invention relates to the class of horseshoes in which the shoe has five or more calks—that is, it has calks to support the foot of the horse at points intermediate between the heel and toe calks.

The object of my invention is, in part, to provide such a shoe having five or more calks with the normal fullering having the proper number and arrangement of the nail-holes in the creases.

The object is also to provide such a shoe with frog-supports back of the heel-calks, whereby all the advantages of a bar-shoe are attained in a shoe of the class above described.

In the accompanying drawings, which serve to illustrate my invention, Figure 1 is a plan view of the under side of a shoe embodying my improvements. Fig. 2 is a rear view of the shoe as it appears when on the foot of the horse. Fig. 3 is a side view of the shoe. Fig. 4 is a cross-section on line 4 4 in Fig. 1.

*a* represents the web of the shoe; *b*, the toe-calk.

*c c* represent the heel-calks, and *d d* the intermediate calks at the sides of the shoe.

*e e* represent the normal fullering-creases. These creases extend along the outsides of the intermediate calks *d d*, respectively, each in a continuous manner, thus providing for the proper arrangement and spacing of the holes *g g* for the nails. It will be observed that when the nail-holes are properly spaced and arranged one hole will stand at the side of the intermediate calk; and one of the objects of my invention is to provide the shoe with one or more of such intermediate calks on each side of the shoe, and to provide such a shoe with the normal fullering. So far as I am aware this has never been accomplished, and this defect has proved a serious obstacle to the practical introduction of shoes with such intermediate calks.

I refer, of course, to shoes having the calks

arranged at the outer margin of the web, as they are in the ordinary shoe, and in carrying out my invention I undercut the intermediate calk *d*, as seen in Fig. 4, whereby the nail-hole *g* at this point is overhung by the metal of the calk. This construction provides a bearing at the intermediate calk as far out as usual, and at the same time permits the normal fullering to be employed.

I extend the web of the shoe back beyond the heel-calks *c c* to form supports *h h* for the frog of the horse's foot. These are bent or curved downward, as clearly shown, until their free ends stand at or substantially at the same level as the heel-calks. This will be seen in Fig. 2. This construction combines all the advantages of a bar-shoe with the advantages of a shoe that is open at the heels.

My shoe is adapted to be made from steel or iron, or from a bar of steel and iron combined, and it may be made from rolled blanks by a bending machine or by hand.

Having thus described my invention, I claim—

1. A horseshoe having toe and heel calks and an intermediate calk at the side between the toe-calk and each heel-calk, and having the normal fullering between the toe-calks and the heel-calks, the nail-creases being undercut in the outer faces of the respective intermediate calks, in the manner and for the purpose set forth.

2. A horseshoe having heel and toe calks and intermediate calks *d*, with fullering-creases undercut in the outer faces of the said intermediate calks, and having frog-supports formed by extensions of the web of the shoe at each side beyond the heel-calks, said extensions being curved downward at their free ends, as set forth, their arched upper surfaces providing a support for the frogs.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JACOB RUSSELL.

Witnesses:

HENRY CONNETT,  
JOHN D. CAPLINGER.