

C. S. HILL.  
Horseshoe.

No. 222,700.

Patented Dec. 16, 1879.

Fig. 1.

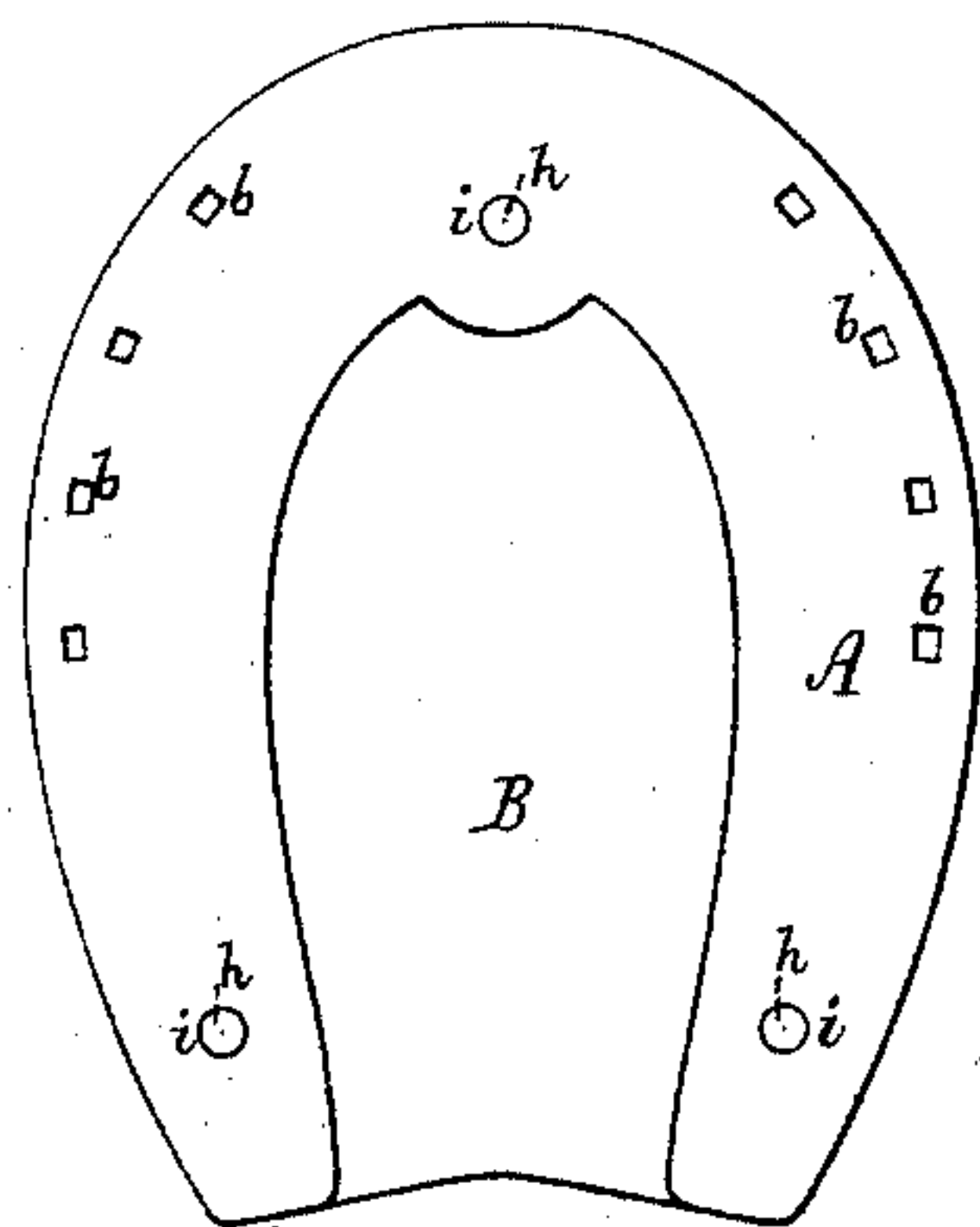


Fig. 2.

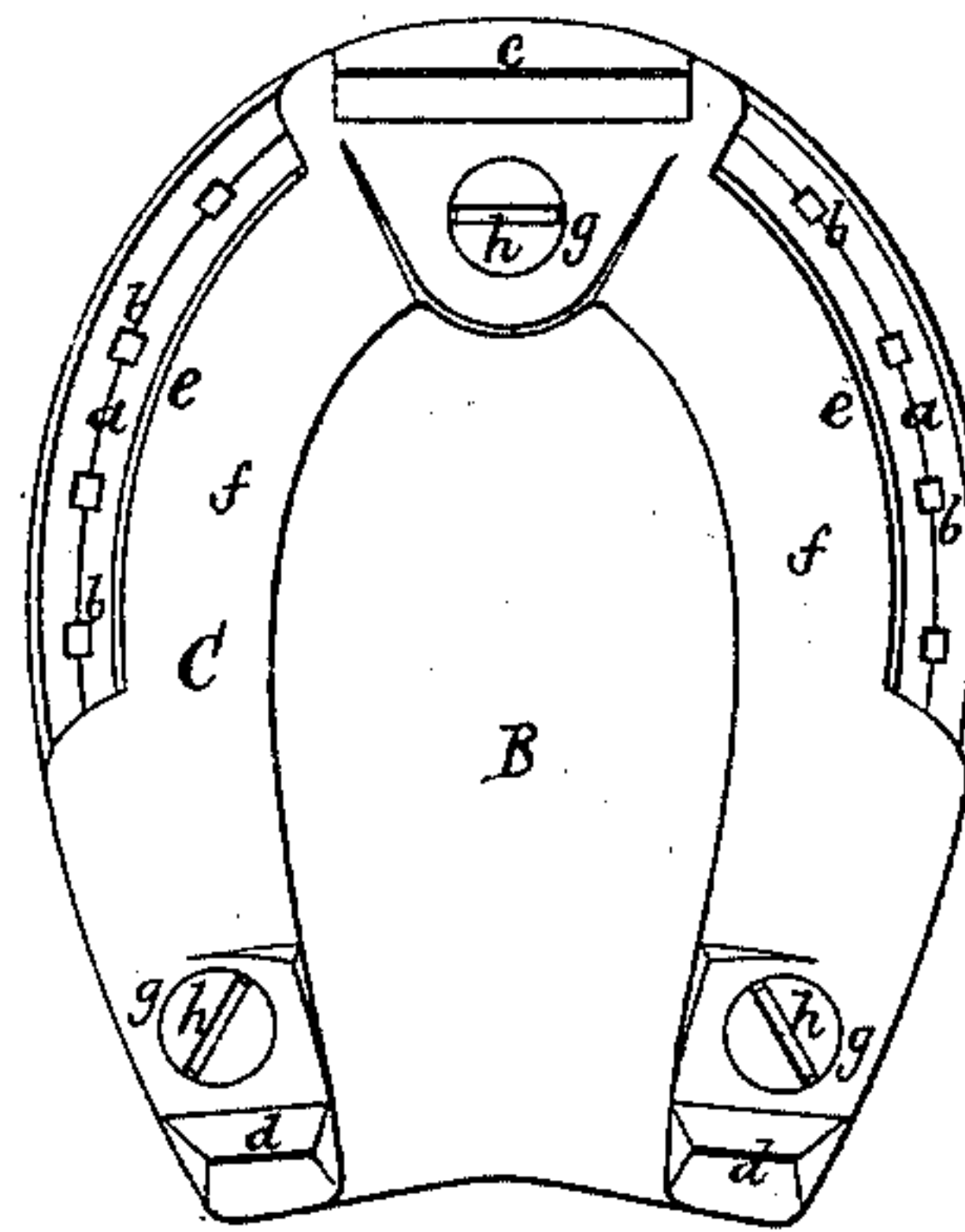


Fig. 3.

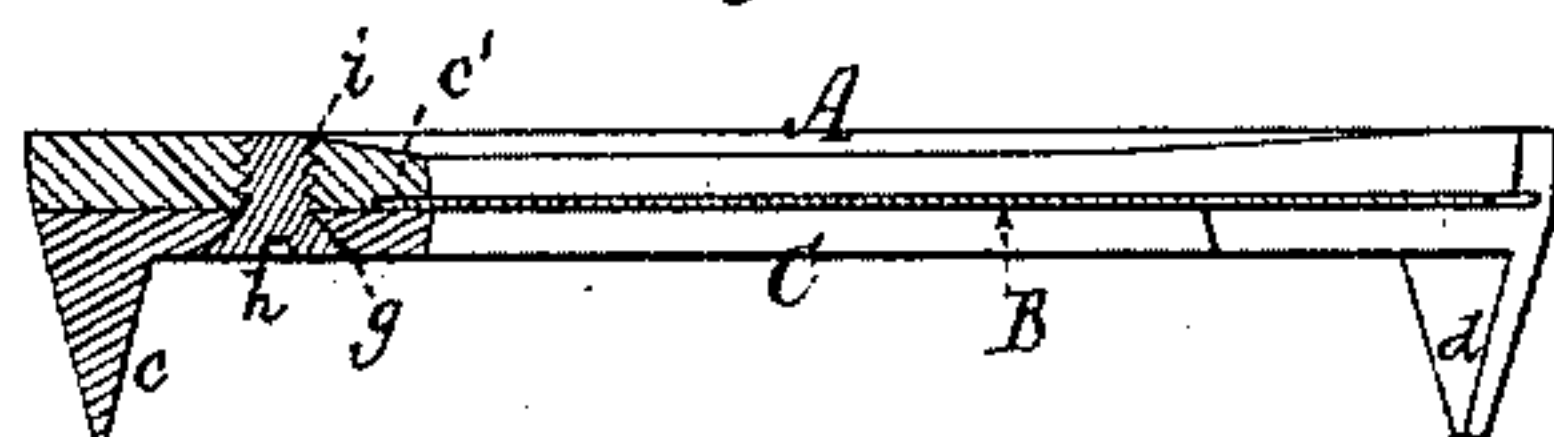


Fig. 4.

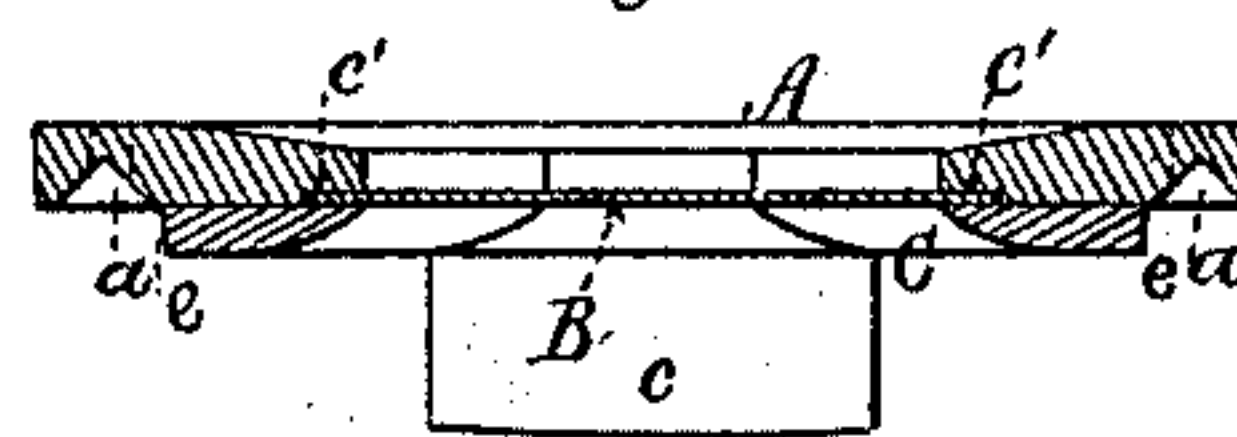


Fig. 5.

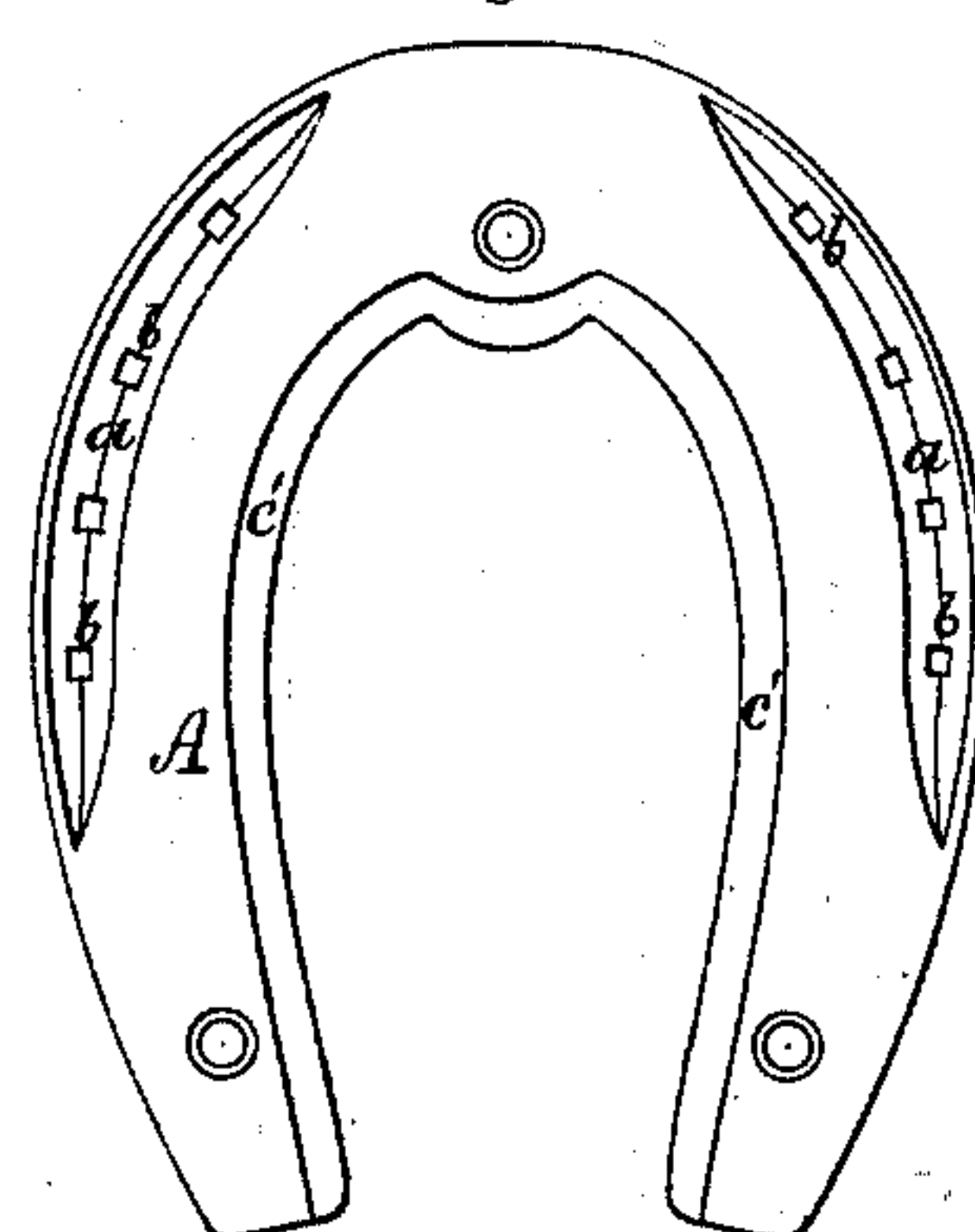


Fig. 6.

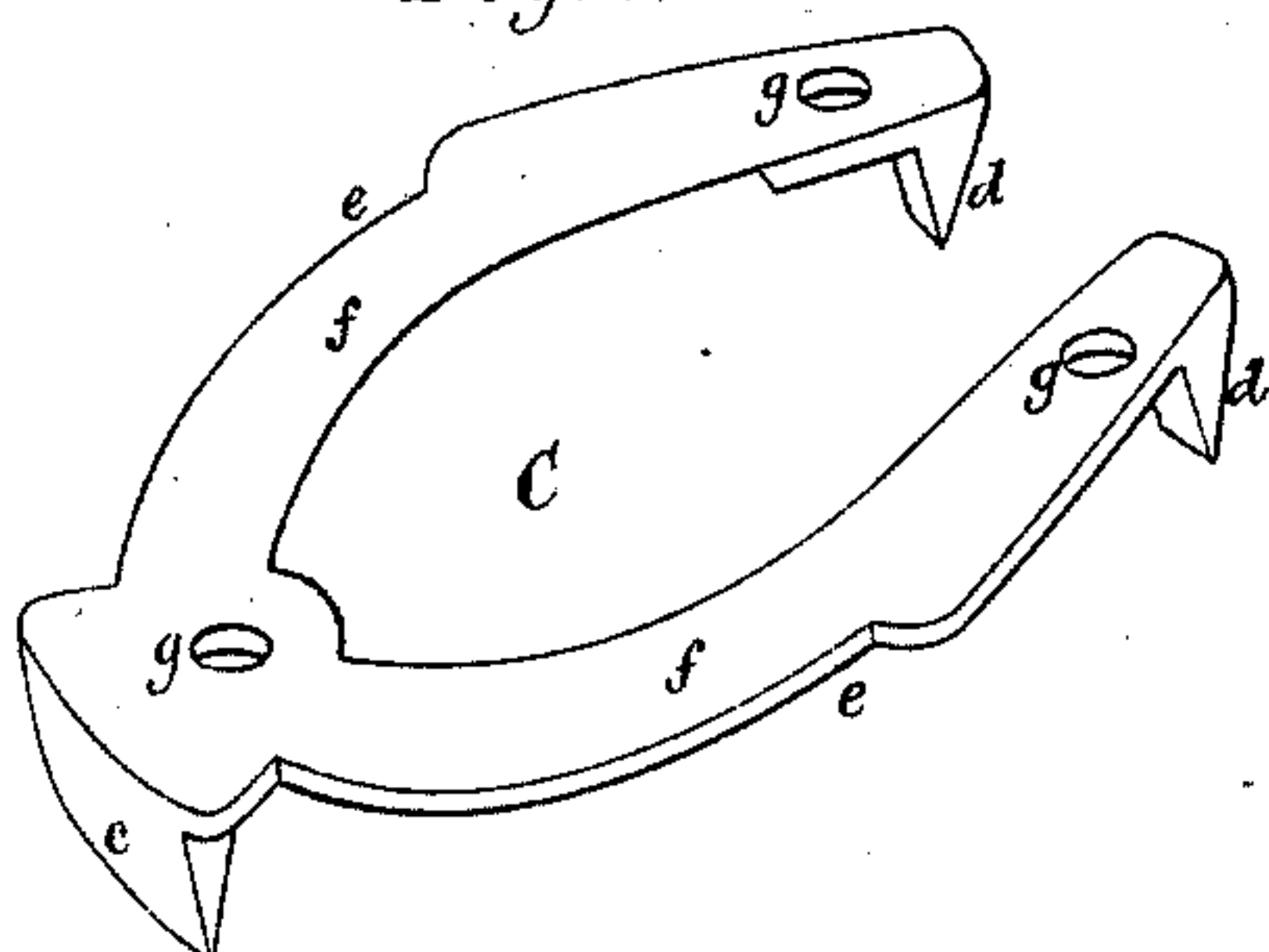
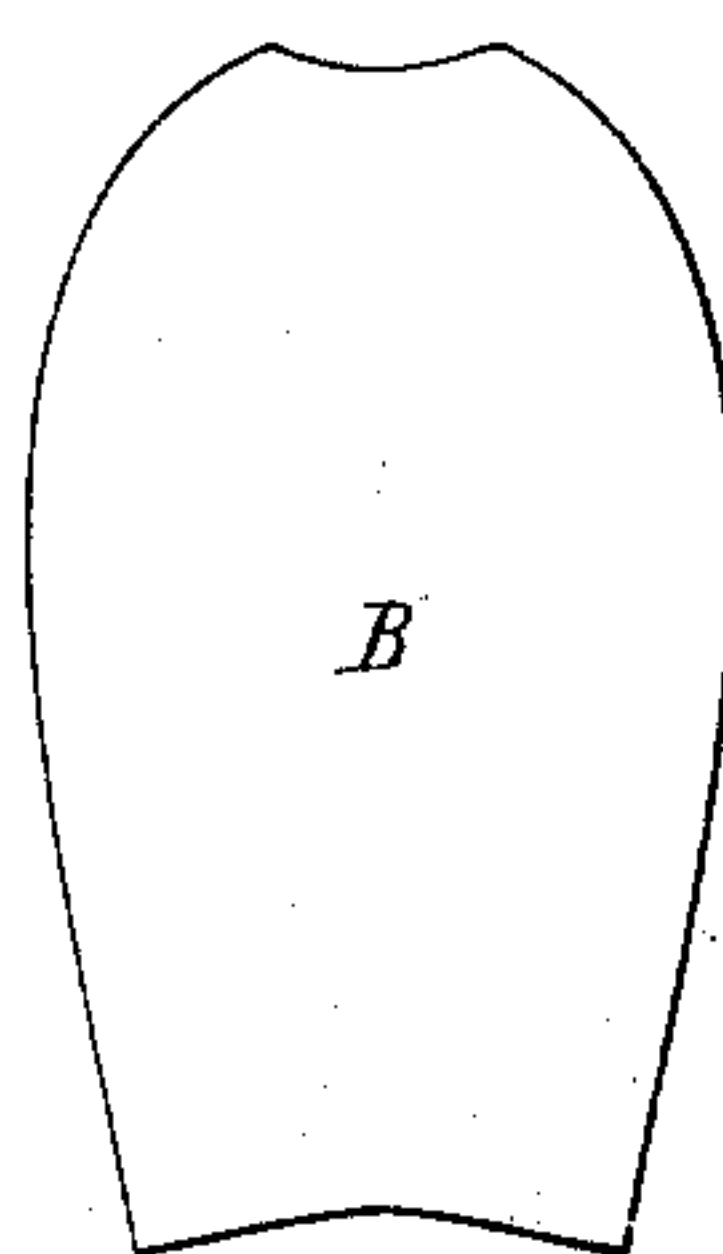


Fig. 7.



Witnesses  
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# UNITED STATES PATENT OFFICE.

CYRUS S. HILL, OF EPPING, NEW HAMPSHIRE.

## IMPROVEMENT IN HORSESHOES.

Specification forming part of Letters Patent No. 222,700, dated December 16, 1879; application filed August 14, 1879.

*To all whom it may concern:*

Be it known that I, CYRUS S. HILL, of Epping, of the county of Rockingham, of the State of New Hampshire, have invented a new and useful Improvement in Horseshoes; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a bottom view, Fig. 3 a longitudinal section, and Fig. 4 a transverse section, of a shoe of my improved kind. Fig. 5 is an under-side view of the bed-shoe; Fig. 6, a perspective view of the auxiliary or calking shoe; Fig. 7, a view of the anti-balling plate or frog-protector, to be hereinafter described.

My improved horseshoe is a compound or duplex one, consisting of the bed and the calking shoes; and besides it has a frog-protector, which is arranged between the two shoes, the nature of my improvement being set forth in the claim or claims hereinafter presented.

By means of my improvement in the calking-shoe it does not cover the heads of the nails used in securing the bed-shoe to the hoof, and consequently requires no filing down or reduction of such nail-heads or the parts of them that may project out of the grooves. It also admits of any one of the nails being withdrawn and another substituted without the necessity of removal of the calking-shoe from the bed-shoe. It also enables the calking-shoe to be used not only for supporting the calks, but as a means of confining the frog-protector in place on the bed-shoe.

In the drawings, A denotes the bed-shoe, formed without calks, but with creases or nail-head grooves *a a* and a series of nail-holes, *b*, to each of them, all being as shown. The bed-shoe, besides the said grooves and holes, is rabbeted or grooved along its inner edge, in manner as represented at *c'*, to receive the anti-balling plate or frog-protector B, which is a plate of metal or other suitable material extending across the opening of the shoe and into the groove *c'*, such plate B being held in

place in the bed-shoe by the calking-shoe C, which, as shown, consists of a sole or auxiliary shoe, having toe and heel calks *c d d* and side notches or recesses, *e e*, arranged as represented, the said notches being to receive the heads of the nails used in securing the bed-shoe to the hoof of a horse.

The flanks or toe and heel calk bar connections *f f* of the calking-shoe are beveled or chamfered transversely, as shown. At its crown and heels the calking-shoe is furnished or formed with countersunk screw-holes *g g g*, to receive the screws *h h h*, by which it is fastened to the bed-shoe, which also has screw-holes *i i i* in it to receive the shanks of the confining-screws.

From the above it will readily be seen that, in order to recalk a shoe, it will not be necessary to remove the bed-shoe from the hoof, but only the calking-shoe, and substitute for the latter a fresh one, with calks duly sharpened. Thus, with a duplex shoe, as described, all necessity of and evil effects from the usual frequent removal of a shoe from the hoof in order to sharpen the calks or to apply others are avoided, as the bed-shoe once fixed to the hoof can there remain, while several of the calking-shoes may be used with it, as occasion may require.

The frog-protector not only serves as a guard to the frog of the hoof, but to prevent stones or snow from collecting therein or in the shoe, to the inconvenience of the horse.

The bed-shoe I usually make of wrought or malleable iron, and the calking-shoe of cast-steel.

What I claim as of my invention is as follows:

In the improved duplex horseshoe, the calksupporting shoe or part C, provided with the side recesses, *c*, arranged with the nail-holes and grooves of the bed-shoe, as set forth.

CYRUS S. HILL.

Witnesses:

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