

(No Model.)

J. D. BILLINGS.  
HORSESHOE.

No. 283,849.

Patented Aug. 28, 1883.

Fig 1.

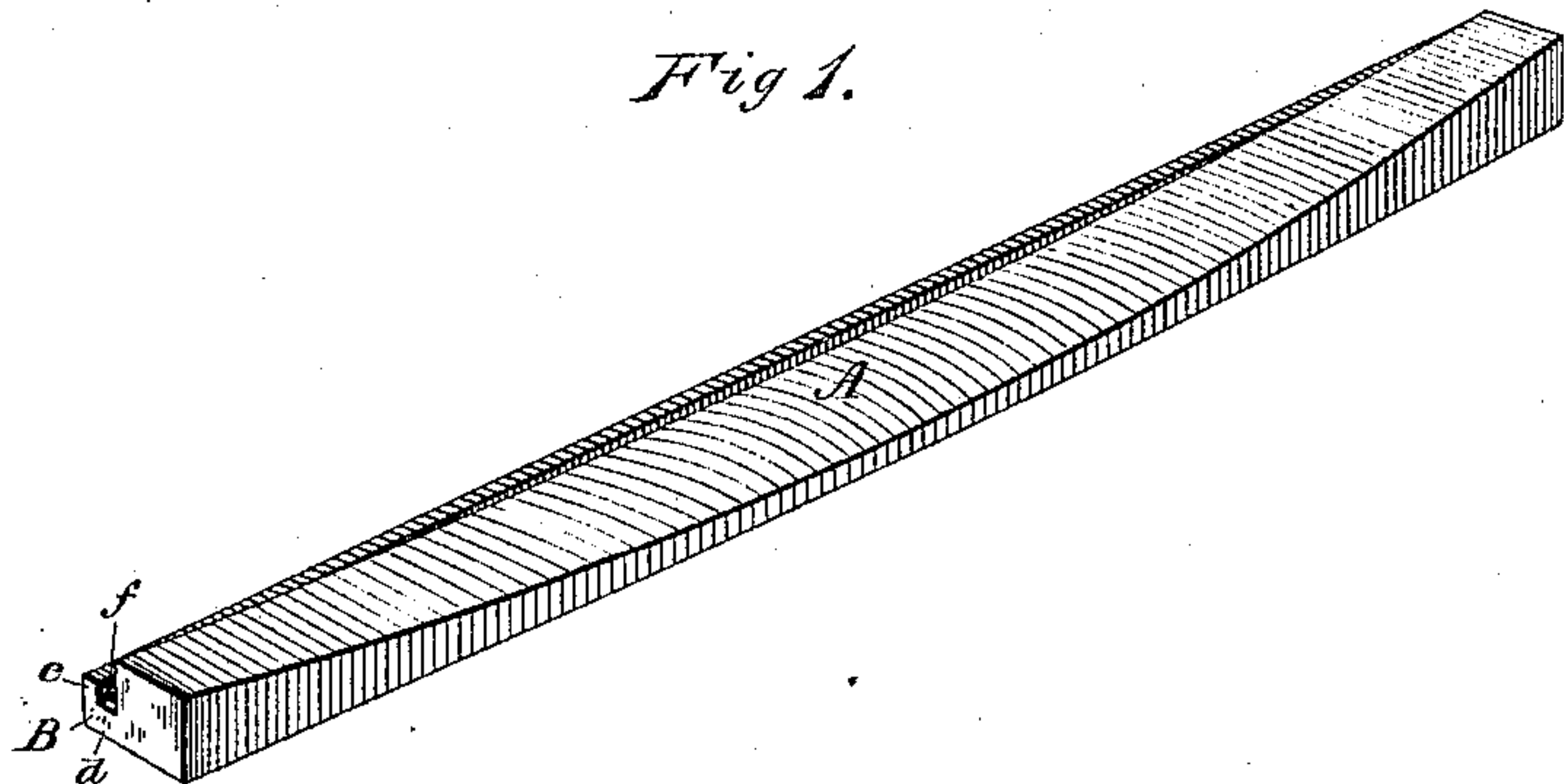


Fig 2.

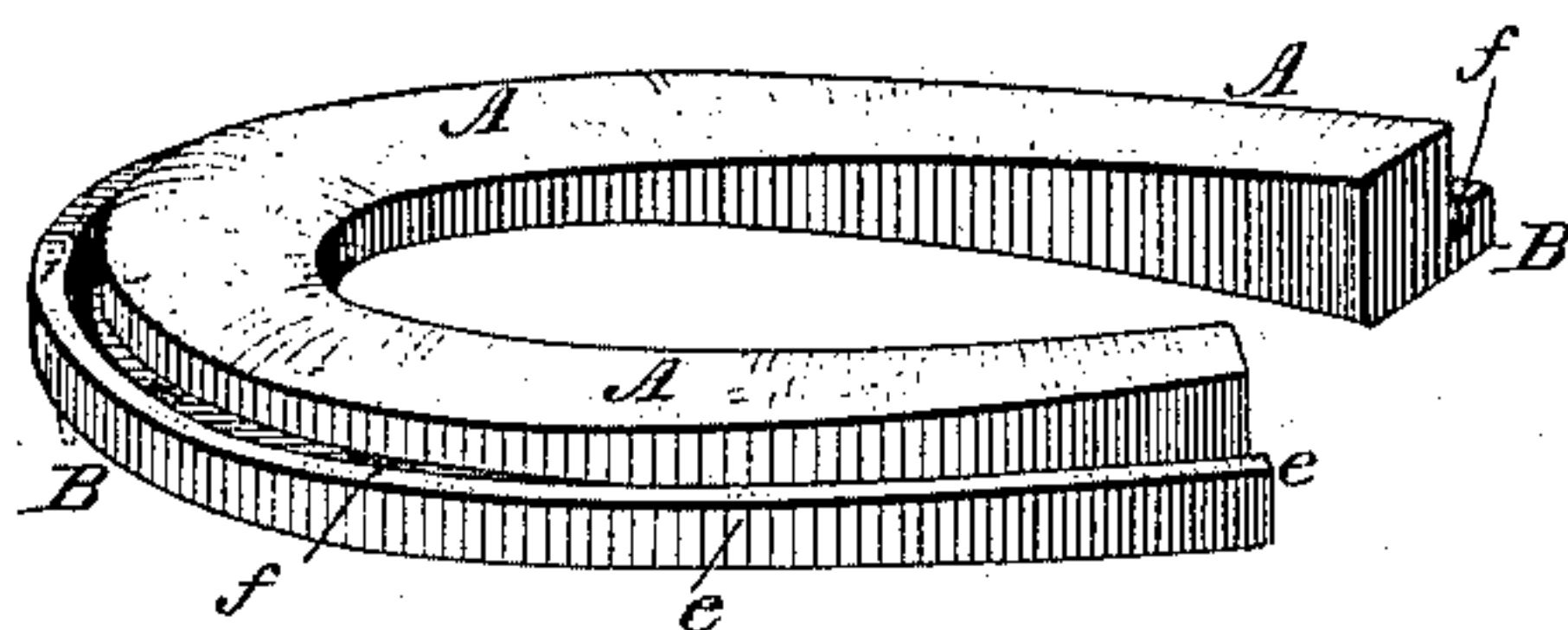


Fig 3.

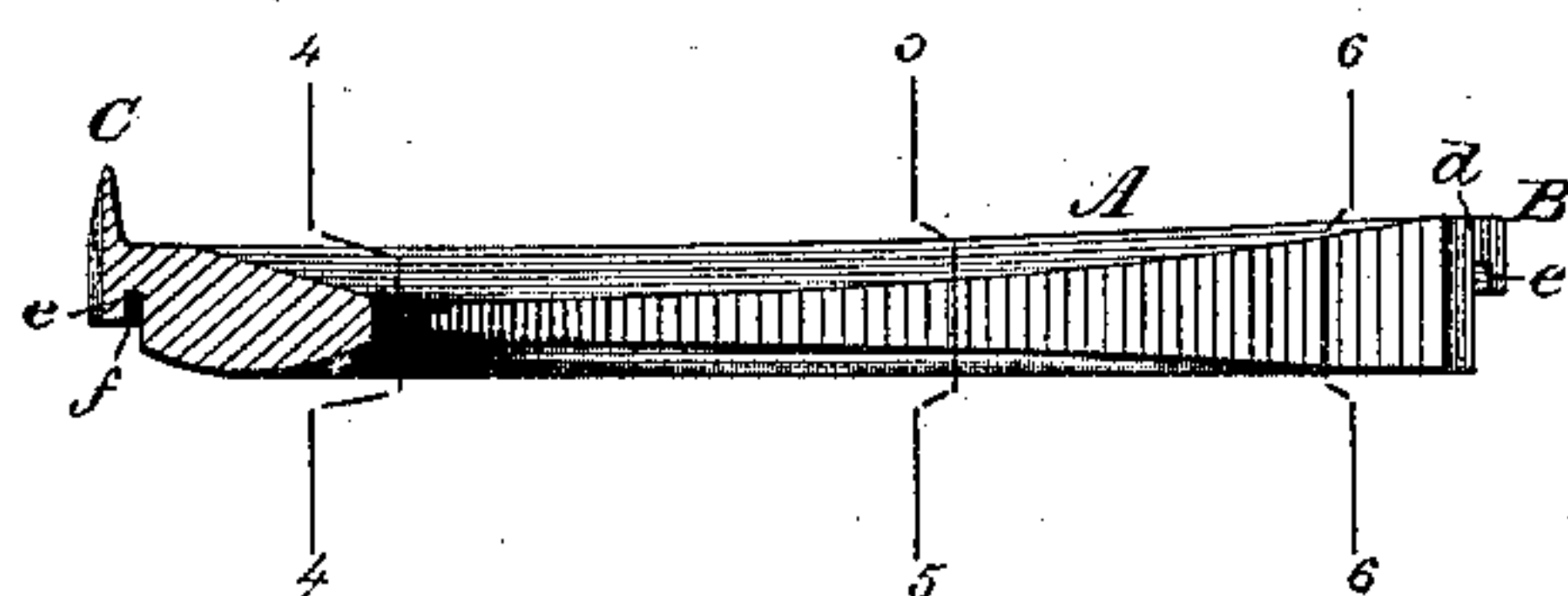


Fig 4.



Fig 5.

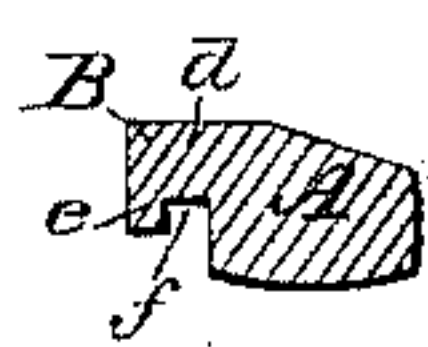
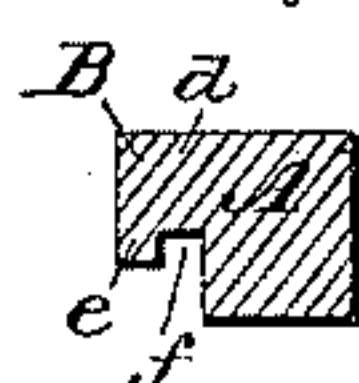


Fig 6.



Witnesses:

Harry King  
W. Henry

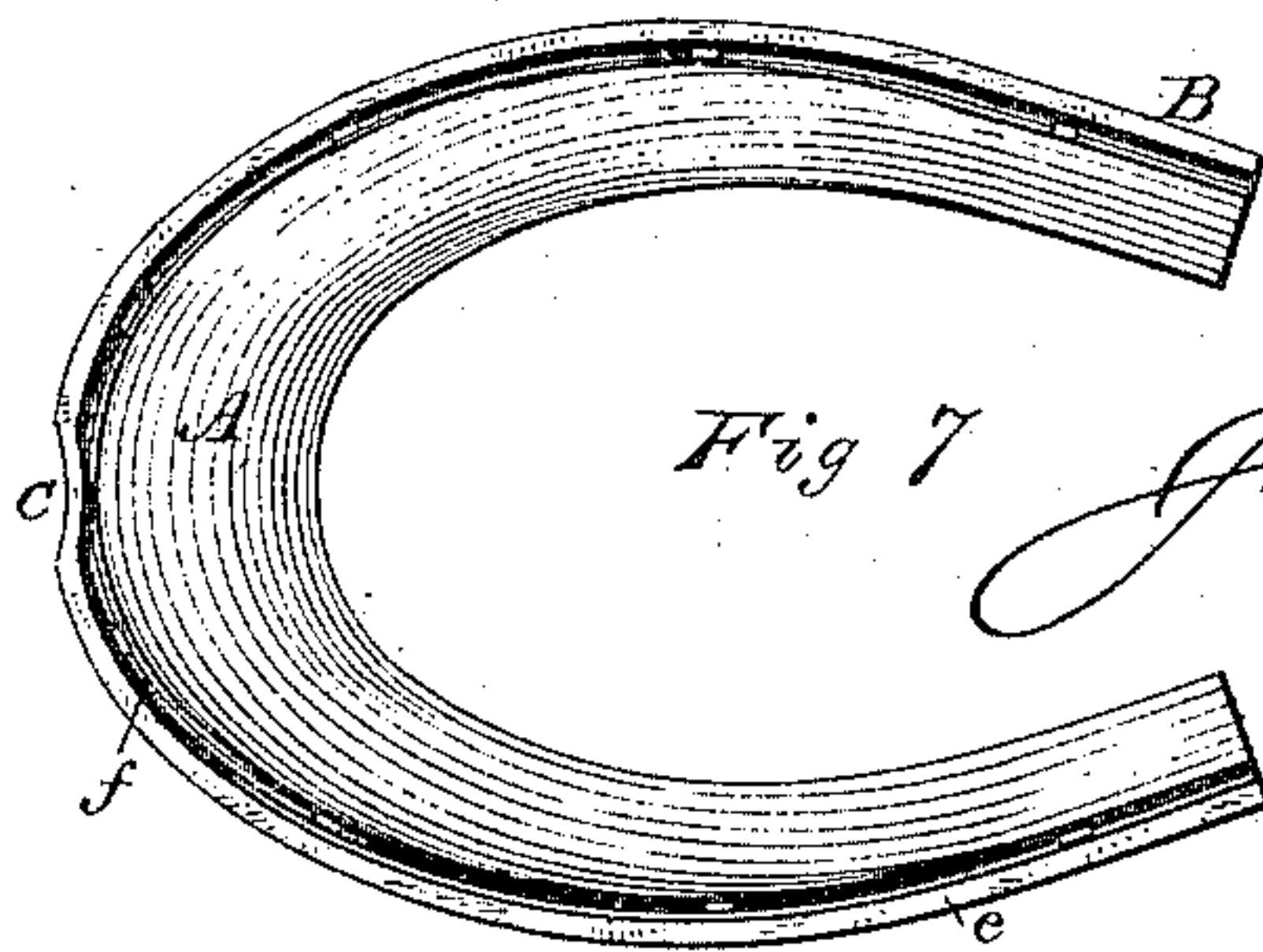


Fig 7

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# UNITED STATES PATENT OFFICE.

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## HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 283,849, dated August 28, 1883.

Application filed March 12, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN D. BILLINGS, a citizen of the United States of America, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Horseshoes, of which the following is a specification.

The object of this invention is to provide an improved horseshoe without calks, for use on the stone pavements of street-railroads, which will conform to the rolling motion of the front foot, which will wear uniformly, which will protect the foot from stones, and which will be economical in construction, application, and use.

The invention consists of a horseshoe of peculiar construction, as hereinafter described and claimed.

Figure 1 of the drawings represents a horseshoe-bar from which the horseshoe is formed. Fig. 2 is a perspective view of said bar bent into a shoe. Fig. 3 is a longitudinal section of a completed shoe. Fig. 4 is a transverse section on line 4 4 of Fig. 3. Fig. 5 is a transverse section on line 5 5 of Fig. 3. Fig. 6 is a transverse section on line 6 6 of Fig. 3. Fig. 7 is a plan view of the lower face of a completed shoe.

This shoe is composed of a rolled bar of iron or steel, or a combination of both. The body A is made broad and comparatively thin at the toe and narrow and thick at the heels, its lower face being rounded or convex at the toe and flat at the heels. The upper face of the shoe has a flat or level bearing near its outer edge, extending from heel to heel, for the crust of the hoof, and is beveled at the toe from the

inner edge of said bearing to the inner edge of the shoe, said bevel being tapered on either side toward the heels, losing itself at the quarters or heels. An external angular flange, B, extends from heel to heel, forming a groove, *f*, between the vertical lip *e* of said flange and the body of the shoe. This lip is of less depth than the body of the shoe. The nails for fastening the shoe to the hoof are passed through holes in the horizontal lip *d* of said angular flange, and the heads thereof are wedged between the vertical lip and the body of the shoe, the nails being thereby firmly held, while the heads are protected from contact with the stones. A clip, C, is swaged up at the front of the shoe out of the angular flange. In icy weather toe and heel calks may be applied, if desired. This construction conforms the shoe to the rolling motion of the front foot, adapts it to the unequal wear incident to the different parts, enables it to be nailed at any point of its periphery, and serves to protect the foot from stones.

What is claimed as the invention is—

A calkless horseshoe composed of rolled bar metal, consisting of a body wide and thin at the toe and narrow and thick at the heels, provided with an external angular flange extending from heel to heel, the lower face of said shoe extending below the vertical lip of said flange, and being rounded at the toe and flat at the heels, substantially as described.

JOHN D. BILLINGS.

Witnesses:

CHAS. H. BILLINGS,  
ALBERT R. HERBERT.