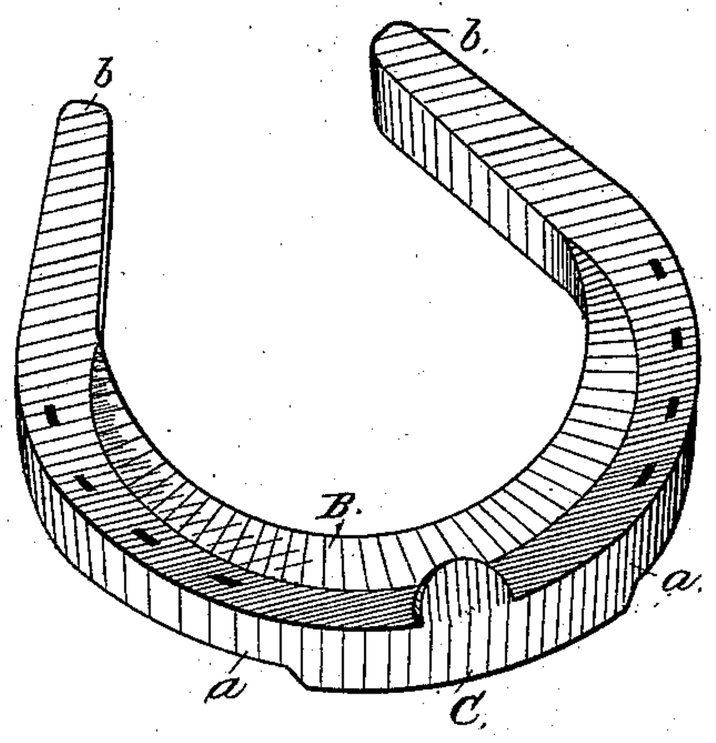
J. R. WILLIAMS.

Horseshoe.

No. 225,260. Patented Mar. 9, 1880.

Fig, 1,



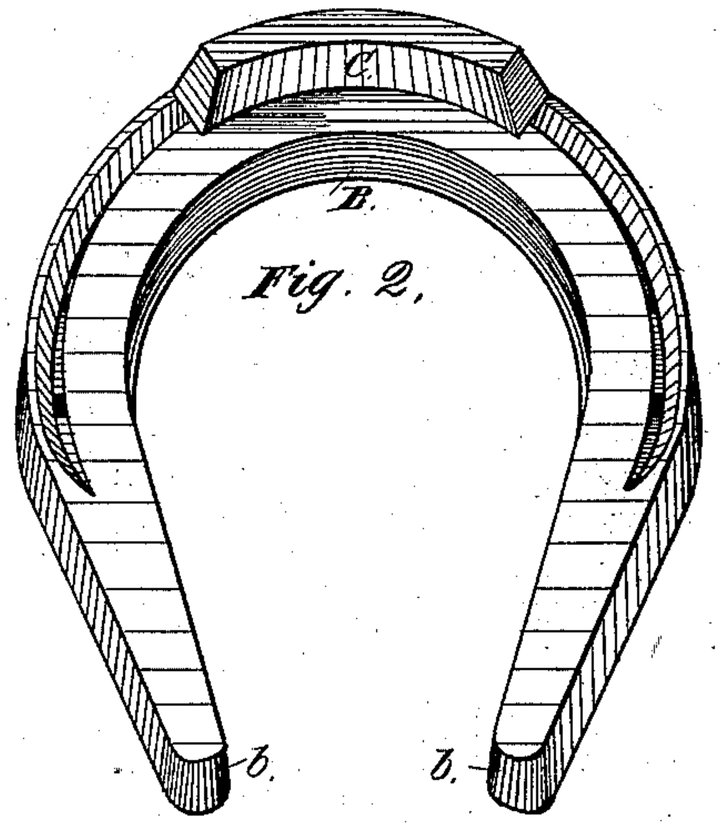
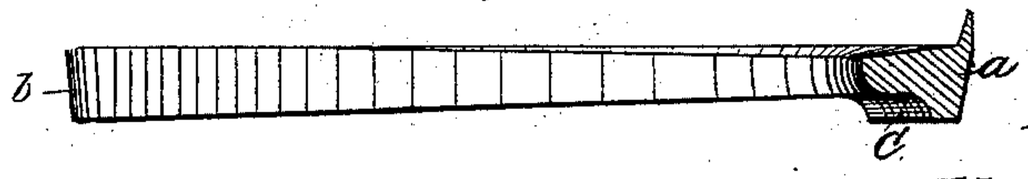


Fig. 2,

Fig, 3.



Attest:

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UNITED STATES PATENT OFFICE.

JOHN R. WILLIAMS, OF JOHNSTOWN, PENNSYLVANIA, ASSIGNOR TO CAMBRIA IRON COMPANY.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 225,260, dated March 9, 1880.

Application filed December 19, 1879.

To all whom it may concern:

Be it known that I, JOHN R. WILLIAMS, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Improvement in Horseshoes, of which the following is a specification.

The subject of my invention is a horseshoe made with a toe-calk and a body tapering in width from front to back and gradually increasing in thickness to the heel, the extremities of the heel being equal in thickness to the toe, including the calk. This construction is desirable with shoes in which heel-calks are not used, as it affords an even bearing to the foot and provides the greatest amount of metal where the wear is sustained, so as to render the shoe as durable as possible with the least possible weight of metal.

By an improved process of manufacture I am enabled to produce a shoe with a wide front, to better protect the foot from injury, and a narrow heel where so much width is not required.

In the accompanying drawings, Figure 1 is a perspective view of my improved shoe. Fig. 2 is a perspective view of the under side of the same. Fig. 3 is a vertical longitudinal section thereof.

The body B of the shoe tapers gradually in horizontal width and increases in vertical thickness from the front *a* to the heel extremities *b b*. The blanks for my improved shoes are successfully produced by rolling, the metal being forced out of the width and into the thickness toward the heel portions of each blank.

A toe-calk, C, preferably of elongated pyramidal shape, increases the thickness of the front so as to equal that of the heel.

The shoe is completed by bending and swaging by machinery which I have made the subject of separate applications for Letters Patent.

The thickening of the heel extremities will be seen to give a precisely even bearing to the shoe without heel-calks and with a toe-calk, the latter being necessary to afford a good hold, and the former being preferably dispensed with, excepting in heavy draft-shoes or in shoes for winter use.

The shoe is made broad in front, where breadth is desirable to protect the foot, while at the heel portions, where breadth is not needed, the metal is used in increasing the thickness of the shoe for the objects stated.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

A horseshoe constructed, as herein described, with a toe-calk, C, and a body, B, tapering in horizontal width and increasing in vertical thickness from front to back, so as to form heel extremities without calks about equal in thickness to the front, including the calk.

JOHN R. WILLIAMS.

Witnesses:
OCTAVIUS KNIGHT,
WALTER ALLEN.