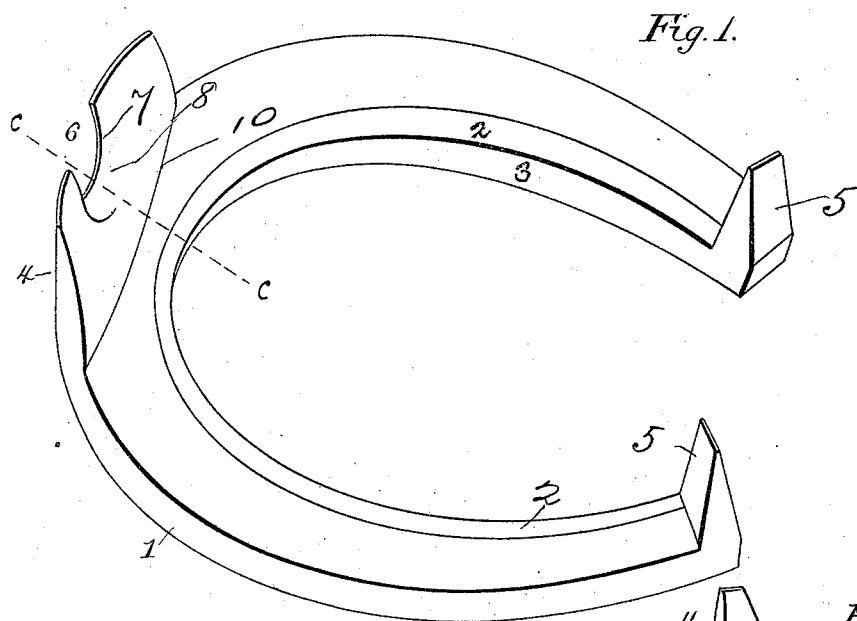


(No Model.)

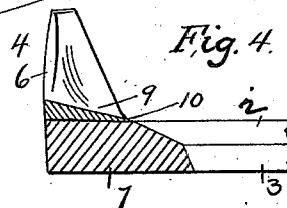
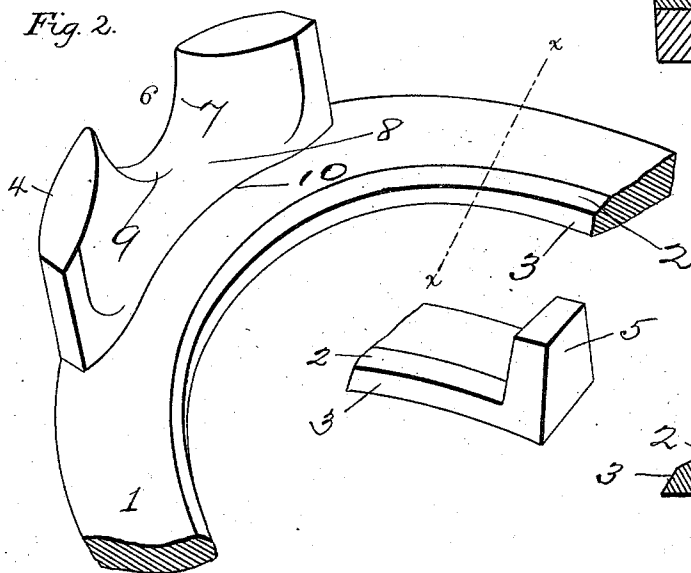
B. F. FINK.  
HORSESHOE.

No. 513,428.

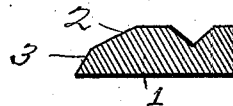
Patented Jan. 23, 1894.



*Fig. 2.*



*Fig. 3.*



Attest:

*Elliott P. Hough*  
*S. B. Nichols*

Inventor:

*Benjamin F. Fink*  
*By Chas. J. Gooch*  
*attorney*

# UNITED STATES PATENT OFFICE.

BENJAMIN FRANKLIN FINK, OF ORBISONIA, PENNSYLVANIA.

## HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 513,428, dated January 23, 1894.

Application filed March 22, 1893. Serial No. 467,153. (No model.)

### *To all whom it may concern:*

Be it known that I, BENJAMIN FRANKLIN FINK, a citizen of the United States, residing at Orbisonia, in the county of Huntingdon and State of Pennsylvania, have invented certain new and useful Improvements in Horse and Mule Shoes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements, as hereinafter set forth, in shoes for horses and mules.

In the accompanying drawings:—Figure 1 represents a perspective view of a shoe designed for winter use. Fig. 2 represents an enlarged view of the toe portion and of one heel of a shoe designed for use in other than slippery weather. Fig. 3 represents a section on the line  $x-x$ , of Fig. 2. Fig. 4 represents a section taken on the line  $c-c$  of Fig. 1.

The object of my invention is to produce an improved construction of shoe for horses, mules and other draft animals in which the calks and body of the shoe are formed integrally by casting, dieing or otherwise; the body of the shoe being formed at its inner edge with a double bevel and the toe-calks of curved and bifurcated formation with an inner central concaved or beveled portion tapering toward the bottom so as to form, at the bottom, a substantial knife-edge.

1 represents the body of the shoe which at the inner portion of its under face is formed with a continuous double bevel 2, 3, whereby the accumulation or balling of either dirt or snow in the interior of the shoe or hoof is prevented. This double form of bevel possesses additional advantages in that the upper bevel 2 affords under some circumstances, such as on rough or uneven roads, cobble-paving, and the like, a foot-hold for the animal secure from slipping, which would not exist were the shoe of a continuous bevel or taper interiorly from bottom to top while, at the same time, the double bevel is sufficiently continuous to shed any dirt or snow that may come in contact therewith. Another advantage is that the shoe is stronger at the part

adjacent to the ordinary tread than would be the case were the taper from the under to the upper face abrupt and continuous.

4 represents the toe-calk and 5 the heel-calks. The body and calks, respectively, are formed integrally by casting, rolling in dies, or in any other suitable manner from either wrought or malleable metal, as iron or steel.

For use in winter or when the roads are slippery shoes having pointed calks, as in Fig. 1, are employed. For use at other seasons of the year shoes having blunt-ended calks, as in Fig. 2, are employed. The toe-calk, 4, is of curved form corresponding with the curvature of the toe of the shoe and of a width corresponding, or nearly so, with the breadth of the toe of the shoe. Centrally of this calk is formed a semi-circular or U-shaped notch 6, bifurcating the calk, said notch being at its outer end of a width about or nearly equal to one-half the width of the calk. The inner walls 7 and bottom 8 of this bifurcated calk 4 are formed with a curved and beveled recess 9 tapering outwardly and downwardly so as to gradually coalesce with the tread as at 10, a curved incline thus being formed by said curved and beveled recess 9 leading from the tread of the shoe to the curved and sharp-edged U-shaped notch 6. By this construction of toe-calk it will be apparent to those skilled in the art that free and unimpeded exit is afforded through the toe-calk to any dirt or snow that might otherwise tend to accumulate at the toe of the shoe. By forming the toe-calk as above described a double calk is produced affording firm and secure bearing for the foot of the animal on opposite sides of the toe of the shoe instead of at the center thereof simply. This form of curved double calk insures a firm purchase for the foot of the animal however he may place or rest his feet on the ground and prevents any back slip or side-wrenching of the foot.

If desired, the recess, 6, may be omitted from the toe-calk which, otherwise, would be of the form above described.

What I claim is—

1. A horse-shoe having on its under side, and adjacent to its inner edge, a double bevel, a toe-calk extending in a curved direction

around the toe of the shoe and having a central U-shaped notch and, in its inner face, a curved recess, substantially as and for the purpose set forth.

5 2. A horse-shoe consisting of an integrally-formed body and toe and heel calks, said body having adjacent to its inner edge a double beveled under face and the toe-calk extending in a curved direction around each side of  
10 the toe of the shoe and having a central curved

vertical notch and a curved central recess in its inner face, substantially as and for the purpose set forth.

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

BENJAMIN FRANKLIN FINK.

Witnesses:

D. L. GRISINGER,

T. M. KELLY.