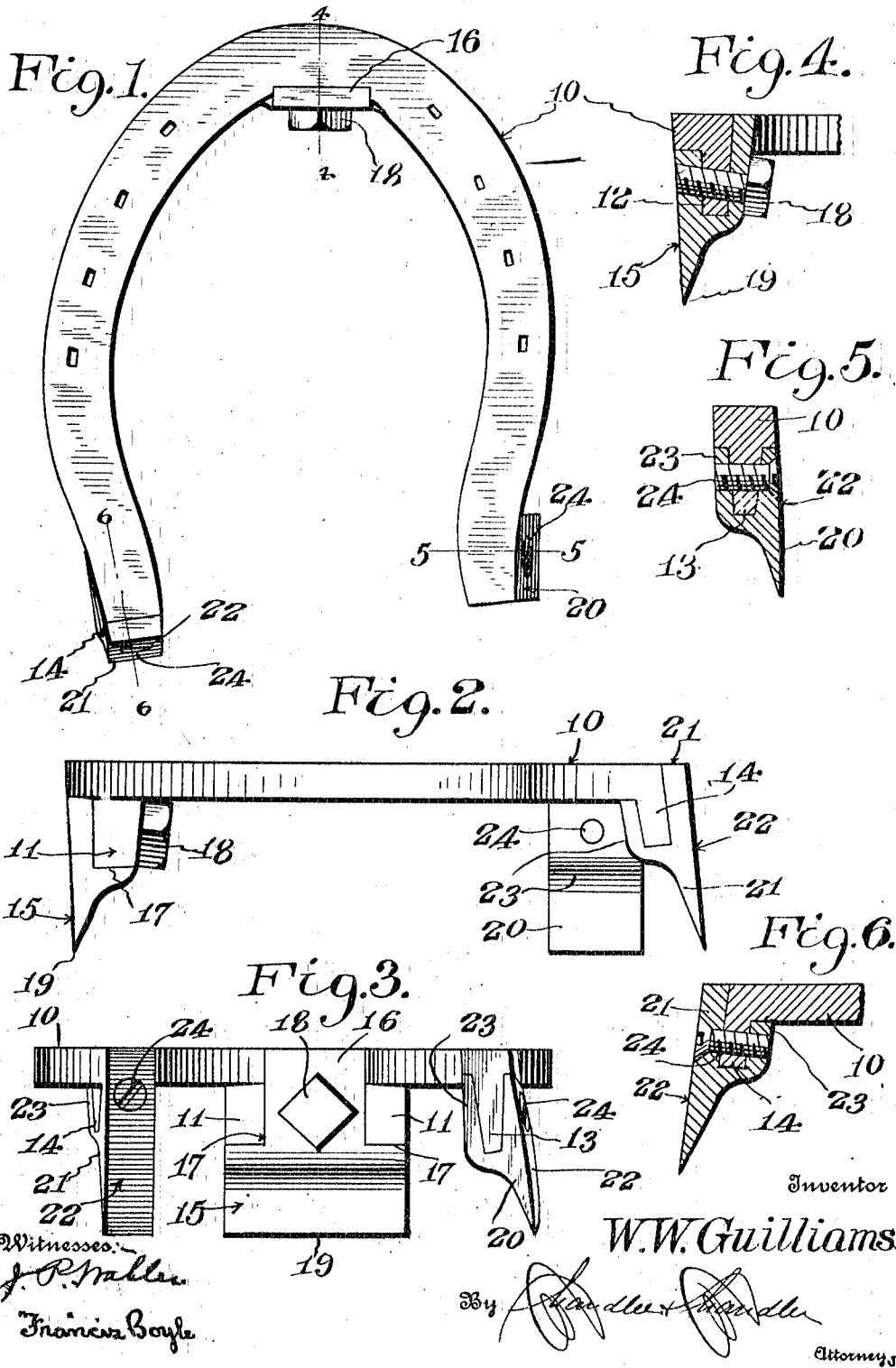


W. W. GUILLIAMS.
HORSESHOE.
APPLICATION FILED MAY 24, 1912.

1,059,457.

Patented Apr. 22, 1913.



UNITED STATES PATENT OFFICE.

WILLIAM W. GUILLIAMS, OF CONESVILLE, OHIO.

HORSESHOE.

1,059,457.

Specification of Letters Patent.

Patented Apr. 22, 1913.

Application filed May 24, 1912. Serial No. 699,575.

To all whom it may concern:

Be it known that I, WILLIAM W. GUILLIAMS, a citizen of the United States, residing at Conesville, in the county of Coshoc-ton, State of Ohio, have invented certain new and useful Improvements in Horse-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 horse shoes and has for an object to provide a horse shoe having a novel removable toe calk that will have a straight unbroken front face which is of such extent that the draft animal may get a better grip on the road bed when the foot is tilted in pulling with the toe, than ordinary.

A further object of the invention is to provide a novel heel calk on one side of the shoe which will have its penetrating edge extending longitudinally of the shoe so that the foot will be prevented from twisting movement when the draft animal is exerting itself in pulling.

A still further object of the invention is to provide calks having straight unbroken outer faces and having upwardly opening hook-like flanges on the inner faces to receive the attaching projections on the under surface of the shoe, the value of the straight outer faces of the calks residing in the fact that upon the calks being sharpened the penetrating edges will at all times be disposed in the same position relatively to the shoe in contrast to the usual result of the penetrating edges assuming new positions relatively to the shoe upon the calks being sharpened.

With the above objects in view the invention consists of certain novel details of construction and combination of parts hereinafter fully described and claimed, it being understood that various modifications may be made in the minor details of construction within the scope of the appended claim.

In the accompanying drawing forming part of this specification:—Figure 1 is a plan view of the shoe. Fig. 2 is a side elevation of the shoe. Fig. 3 is a rear elevation of the shoe. Fig. 4 is a cross sectional view taken on the line 4—4 Fig. 1. Fig. 5 is a

cross sectional view taken on the line 5—5 Fig. 1. Fig. 6 is a cross sectional view taken on the line 6—6 Fig. 1.

Referring now to the drawing in which like characters of reference designate similar parts, 10 designates a horse shoe having arranged on the bottom face of the toe a pair of alined straight oblong projections 11 connected by an integral web 12 situated at the rear edge of the toe and extending at a right angle to the long axis of the shoe. An oblong projection 13 is disposed on the bottom face of one heel of the shoe and extends longitudinally of the shoe. Another oblong projection 14 is disposed on the lower face of the opposite heel of the shoe and extends transversely across the heel.

The toe calk is formed from a single stock of metal preferably steel and consists of a straight plate 15 having an unbroken straight front face, and having on the rear face an upwardly opening hook like flange 16 which is cut away on opposite sides as shown at 17 to receive the oblong projections 11 of the shoe toe. The body of the flange snugly fits in between the opposing inner edges of the projections 11 and bears snugly against the rear face of the connecting web 12 of the projections. A securing screw 18 is threaded through the body of the flange, through the web, and through the plate. The inner face of the plate is beveled below the flange toward the front face of the plate and merges with the front face in a sharp penetrating edge 19. Upon continued sharpening of the plate the penetrating edge will always be disposed at the base of the straight front face of the calk and consequently will constantly be maintained in the same position relatively to the shoe.

The heel calks 20 and 21 are similar in construction and each consists of a metal straight plate 22 formed preferably of steel and having an unbroken straight outer face. The inner face is equipped with an upwardly opening hook-like flange 23 which is of the same width as the plate. The space between the plate and flange is of sufficient magnitude to snugly receive the related oblong projection of the shoe heels. A set screw 24 is threaded through the flange, through the related projection, and through the plate, the inner face of the plate is beveled below the flange toward the front

face and merges with the latter in a sharp penetrating edge 25. It will be noted that one of the heel calks $\frac{7}{8}$ is arranged with its penetrating edge disposed at a right angle to the long diameter of the shoe while the other heel calk is arranged with its long diameter extending longitudinally of the shoe or substantially in parallelism with the long diameter of the shoe. The latter named heel calk will prevent twisting of the foot when the draft animal exerts itself in pulling while the first named heel calk operates as an ordinary heel calk.

All of the calks may be removed when desired by simply unloosening their set screws, and it will be understood that the calks may be made in various sizes and with either dull or knife edge penetrating edges to adapt the shoe to various conditions of service.

What is claimed is:—

The combination of a horse shoe having a pair of substantially square lugs on the bottom face of the toe portion, a web connecting said lugs, a toe calk having a groove in the top edge receiving said web, and being cut away to receive said lugs with the resultant tongue between said cut away portions snugly fitting against the opposing inner faces of said lugs and against the rear face of said web, and a securing screw passed through said calk and said web.

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

WILLIAM W. GUILLIAMS.

Witnesses:

J. C. ADAMS,
MARY HOSFELT.