S. P. FISHER.

HORSESHOE.

No. 189,718. Patented April 17, 1877.

Fig. 1.

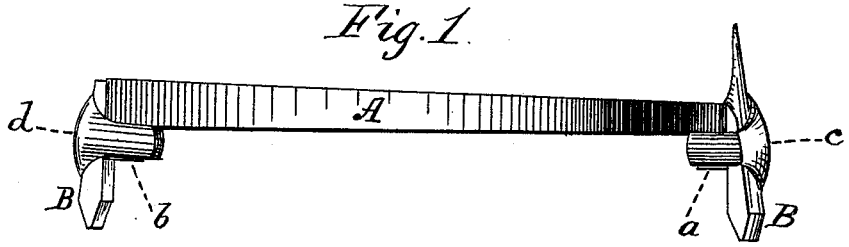


Fig. 2.

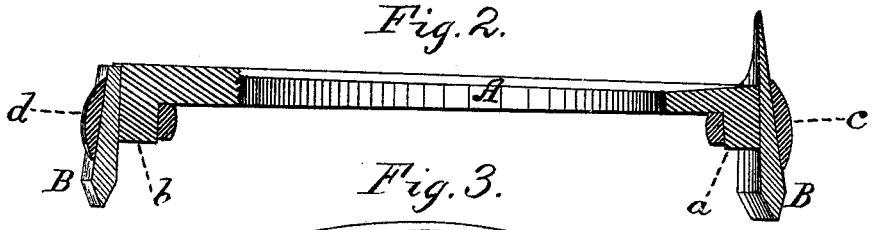


Fig. 3.

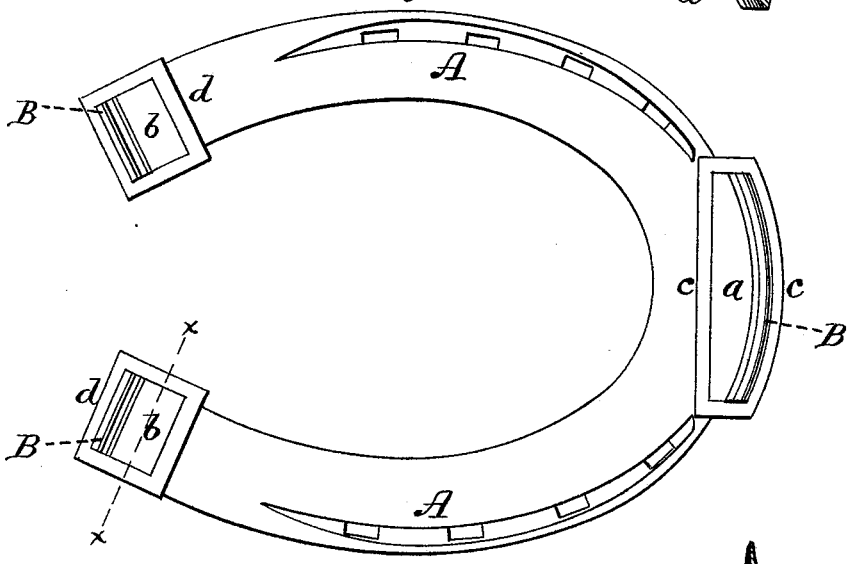


Fig. 4.

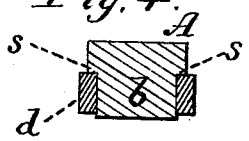
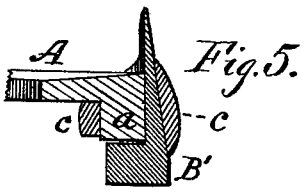


Fig. 5.



Witnesses
F. A. Pollock.
G. Smith.

Simon P. Fisher Inventor,
By Connolly Bros & McGehee
Attorneys.

UNITED STATES PATENT OFFICE.

SIMON P. FISHER, OF FRANKLIN TOWNSHIP, BEAVER COUNTY, PA.

IMPROVEMENT IN HORSESHOES.

Specification forming part of Letters Patent No. **189,718**, dated April 17, 1877; application filed February 1, 1877.

To all whom it may concern:

Be it known that I, SIMON P. FISHER, of Franklin township, in the county of Beaver and State of Pennsylvania, have invented certain new and useful Improvements in Horseshoes; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a side elevation. Fig. 2 is a vertical longitudinal partial section. Fig. 3 is a bottom view. Fig. 4 is a section on *x x* of Fig. 3. Fig. 5 is a detail.

This invention relates to improvements in horseshoes; and consists in the construction and combination of parts, as hereinafter more fully described and claimed.

The shoe proper in general appearance does not depart from the accepted standard, and in construction varies only in the fact that the toe and heels are swaged in suitable dies, in order that, without any further manipulation, they may accurately fit the clamps and chisel-calks which constitute the remainder of my invention.

A designates the shoe, having the toe *a* and heels *b*, whose horizontal section may be of any suitable shape—rectangular or otherwise.

I prefer to make the toe *a* with its front curved to correspond with the curve of the shoe, and inclined slightly outward toward the base. The heels I prefer to make rectangular.

I next construct a clamp, C, for the toe, and clamps *d* for the heels. Clamp C is made to surround the toe, and fit it closely on the sides and rear, but large enough in front to leave a slit for the insertion of the calk. Clamps *d* are similar, but made to brace against shoulders *s* formed on the heel at about the line of the under surface of shoe A, and so fitted as to leave a slit at the rear instead of at the front.

All the clamps are made broad beyond the slit, to afford more surface for gripe, and are so constructed that the slit constitutes a wedge-like opening, the broad portion being at the bottom.

So formed, the clamps are all placed in position, and the under surfaces of the heels and toe "set" slightly with a hammer, so as to keep the clamps from dropping off during subsequent operations or repairs.

The calks proper consist of inverted wedges B, with the thick end of the wedge beveled off to an edge, either a double bevel or single to either side being given. This forms a winter-calk.

The heel-calks are rectilinear; but I prefer to make the toe-calk of a concavo-convex form to suit the shape of the shoe.

The calks B are inserted thin-end foremost into the slits from underneath, and driven home tightly, after which the shoe is fastened to the hoof in the usual manner.

It is obvious that the pressure exerted by the horse will always tend to more securely tighten the calks. The toe-calk may be made long enough to form a toe-clip above the shoe or not, as desired.

The summer-calk B′ is shown in Fig. 5, being substantially identical with calk B, except that it has an upset end shouldering against the toe and heels underneath.

The shoe is easily constructed, all that is necessary being a swaging-die to give the toe and heels the proper form and size. A blow or two sets them in the die, and they then require no filing or fitting whatever.

In practice I make the clamps of wrought-metal and the calks of hardened steel; but both may be of steel or other material without departing from my invention.

The toe and heels may be beveled down to the calks, and the latter extend but a trifle below, thus approximating the construction of a rodent's tooth, the hard material being at the edge, and the soft in the body. Thus the comparative wear would preserve the conditions of edge and bevel.

Having fully described my invention, I claim as new—

1. The combination of a clamp, constructed substantially as set forth, a wedge-shaped

calk, and a suitable projection on the face of the shoe, sustantially as specified.

2. The combination of a clamp, constructed substantially as set forth, a wedge-shaped calk, and a heel, *b*, on the shoe, rabbeted to form shoulders for the clamp, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of January, 1877.

SIMON P. FISHER.

Witnesses:

BENJAMIN NYE,

ADAM T. MAIN.