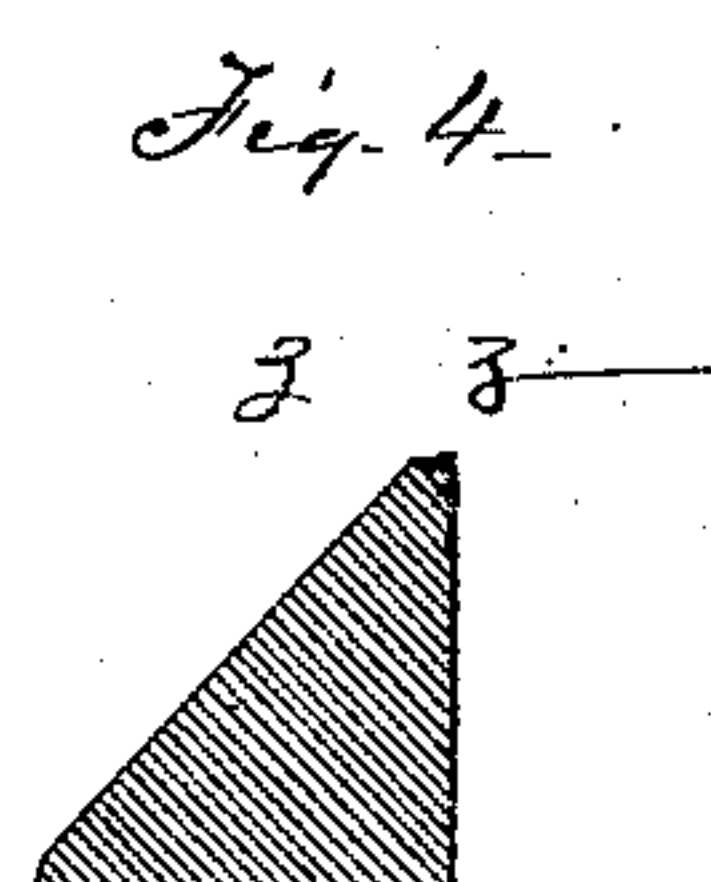
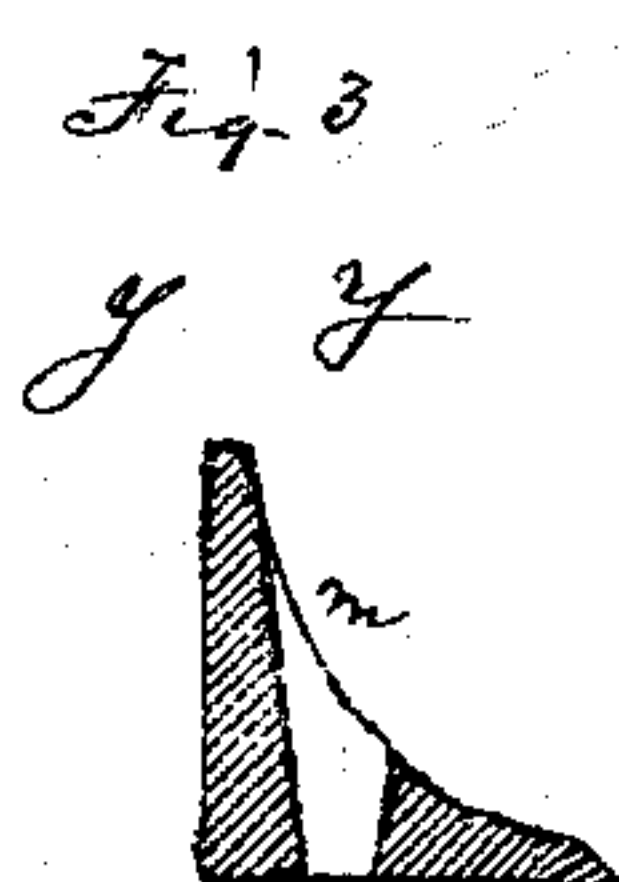
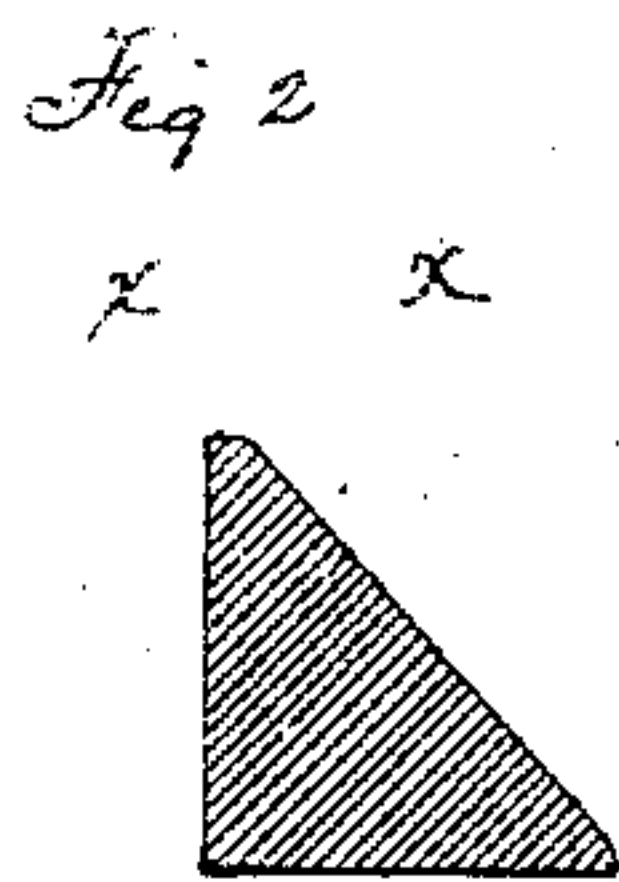
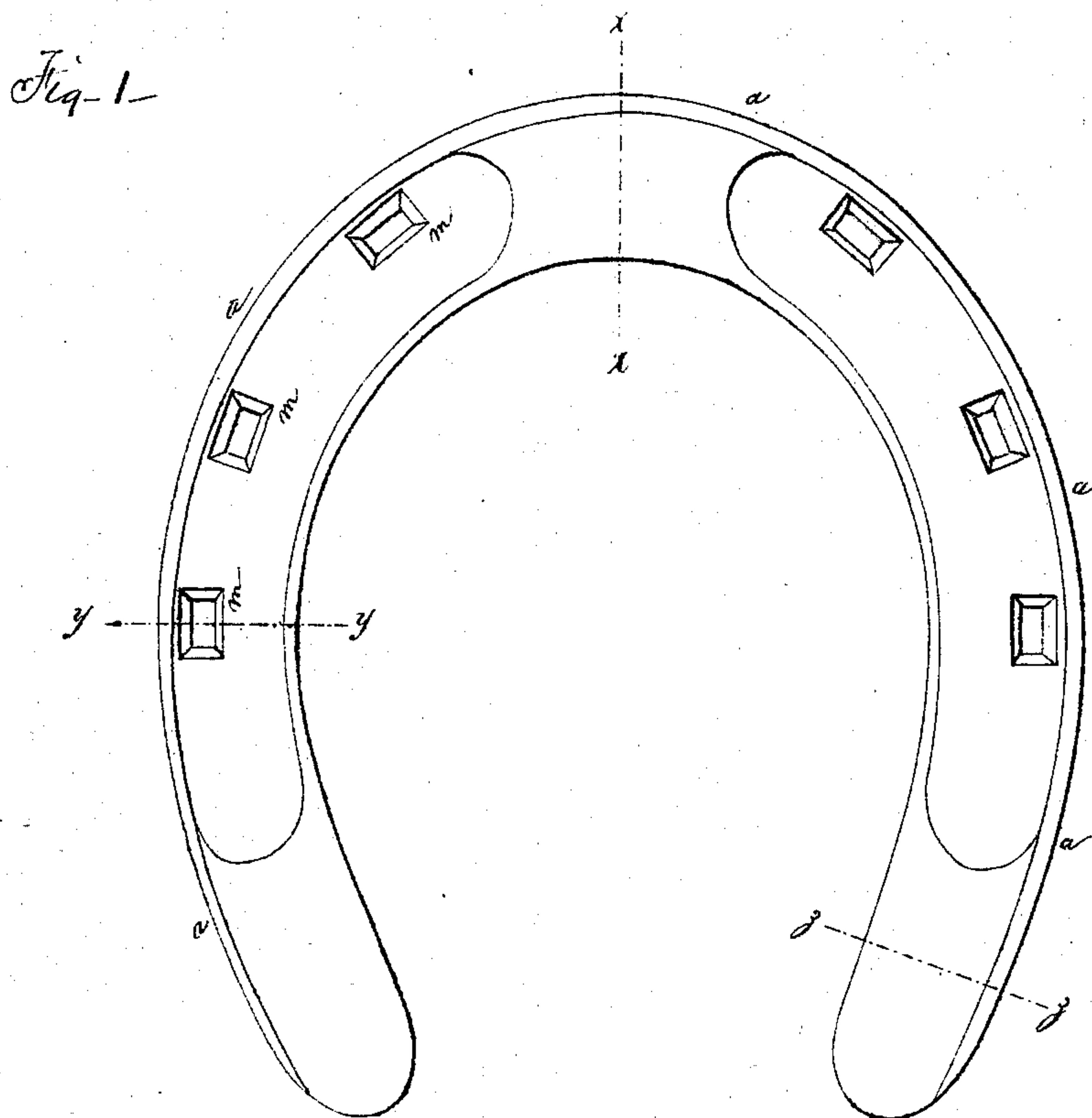


H. B. FERREN.

Horseshoes.

No. 130,629.

Patented Aug 20, 1872.



R. S. Howard
Geo. H. Hughes } Witnesses

H. B. Ferren
Inventor.

UNITED STATES PATENT OFFICE.

HORACE B. FERREN, OF BATAVIA, NEW YORK.

IMPROVEMENT IN HORSESHOES.

Specification forming part of Letters Patent No. **130,629**, dated August 20, 1872.

Specification describing certain Improvements in the Construction of Horseshoes, invented by HORACE B. FERREN, of Batavia, in the county of Genesee and State of New York.

My invention relates to improvements in the construction of horseshoes formed by casting in molds; and the invention consists in making the shoes of a particular shape or pattern, so that they may be easily molded, such shape or form of shoe being also better adapted to withstand wear, more readily and securely fitted and sharpened, when necessary, than those heretofore in use.

In the accompanying drawing, Figure 1 is a plan view of the under side of my improved shoe. Fig. 2 is a transverse section of the toe of the shoe. Fig. 3 is a transverse section of the side on the line *y y*, Fig. 1, showing the concave form of the shoe and a nail-hole in section. Fig. 4 is a transverse section of the heel-end on the line *z z*, Fig. 1.

The upper side of the shoe is made flat. The under side is concave approaching at the toe and heel-ends to a right angle triangular form, as shown in Figs. 2 and 4, the upper side of the shoe being the base of the triangle. This places the greatest bulk of metal at the points where greatest strength is required, and which are subject to the greatest wear—to wit., at the toe and heel. The concavities formed in the sides lighten the shoe without impairing its strength, and at the same time they permit of the nail-holes *m* being formed so as to allow the patterns to be easily drawn from the molds. For convenience in molding, these nail-holes are shaped large at the lower end, and tapering upward to a size corresponding with the size of the nail, and being located near the outer wall of the shoe the nails can be more

readily driven in the proper direction or angle, and the heads countersunk within the shoe, so as to be out of the line of wear. By this form of shoe I also obtain a continuous calk, *a a a*, around the entire shoe, which can be readily sharpened without drawing; and by having the bulk of metal at the toe and heel ends, it can be drawn at these points and sharpened when necessary.

I make these shoes of cast-steel by a process which I have invented, and for which I purpose making application for Letters Patent; and by said process I can produce molded cast-steel shoes which will outwear any shoe heretofore put on the market; but, in this application I confine myself to the form of molded shoe, substantially such as described and shown, and I claim that by such form of shoe, made of cast-steel, I can produce shoes of equal weight of a uniform bevel, so as to bear equally upon the hoof; and that by the form of these parts which come in contact with the ground, the shoe, as constructed, is in strict conformity with the natural form and bearing of the horse's foot.

These molded shoes can be produced with much less labor and at less cost than forged shoes.

What I claim as my invention, is—

A molded cast-steel horseshoe, formed as described, with solid right-angle triangular toe and heel-pieces, and concave sides, for the purpose specified, and having the tapering countersunk nail-holes, substantially as set forth.

H. B. FERREN.

Witnesses:

R. S. HOWARD,
GEO. H. HUGHSON.