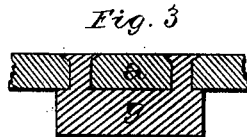
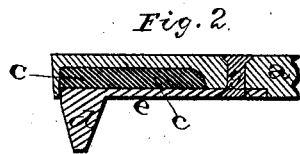
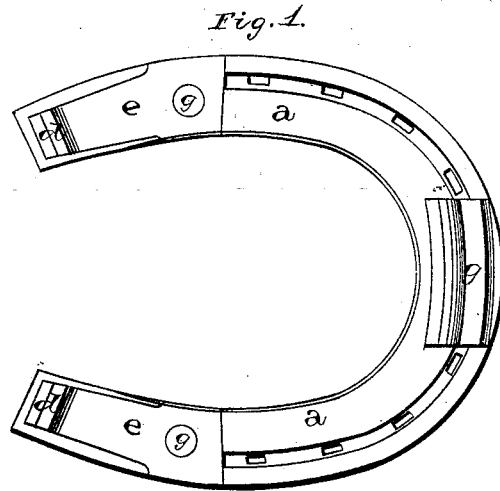


E. MURRAINE.
Horseshoe.

No. 199,927.

Patented Feb. 5, 1878.



WITNESSES.

J. W. Garner
W. C. A. Kern

INVENTOR.

Ed. Murraine
per
F. A. Lehmann
Atty.

UNITED STATES PATENT OFFICE.

EDWARD MURRAINE, OF ROCHELLE, ILLINOIS.

IMPROVEMENT IN HORSESHOES.

Specification forming part of Letters Patent No. **199,927**, dated February 5, 1878; application filed January 3, 1878.

To all whom it may concern:

Be it known that I, EDWARD MURRAINE, of Rochelle, in the county of Ogle and State of Illinois, 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.

My invention relates to an improvement in horseshoes; and it consists in forming recesses in the heels of the shoe to receive an elastic substance, to prevent the concussion of the foot from injuring and jarring the horse, the sides of which recesses are made to project down sufficiently far to hide the rubber entirely from sight, and thus prevent it from being torn out or injured at the edges, as will be the case where it is in any way exposed.

The accompanying drawing represents my invention.

a represents the horseshoe, of any desired shape, size, or construction. In the heels of this shoe are made recesses, sufficiently deep to receive an elastic substance or spring, *c*. In order to prevent this spring or elastic substance from being in any way exposed, and thus liable to be torn out, as is always the case where there is the slightest exposure, the side walls of these recesses are made to project downward sufficiently far to entirely hide the spring from sight. Bearing upward against this spring are the heel-calks *d*, which have the shanks *e* extending forward a suitable distance toward the toe of the shoe. Upon the upper side of the front end of these shanks is formed a stud or projection, *g*, which passes up through the shoe and is clinched

upon the upper side. After this stud or projection has been clinched, only the front end will be held rigidly in place, while the end upon which the calk is formed is allowed a free vertical play, so as to prevent the concussion of the horse's foot from injuring the leg or body. Should these rear calks at any time become worn out or injured, it is only necessary to remove the shoe, punch out the stud or projection, and put a new calk in its place.

The toe-calk *g* has two studs or projections, which pass up through the shoe, and which are clinched upon the top. Should this calk become worn out, which will occur about twice as often as with the heel-calks, it can be removed and replaced by another in a very few minutes of time. By thus making the calks removable, the shoe can be made to last much longer, and with a very great saving of expense.

Having thus described my invention, I claim—

1. The shoe *a*, having the recesses in its rear ends, in combination with the springs or elastic material, and the calks *d e*, the parts being so constructed that the spring is entirely hidden from sight and protected from all wear, substantially as described.

2. The combination of the shoe *a*, having the recesses in its rear ends, the elastic substance *c*, calks *d e*, and the front removable calk *g*, substantially as shown.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of December, 1877.

EDWARD MURRAINE.

Witnesses:

A. S. HOADLEY,
GEORGE W. JONES.