

G. CUSTER.
HORSESHOE.

No. 48,618.

Patented July 4, 1865.

Fig. 1.

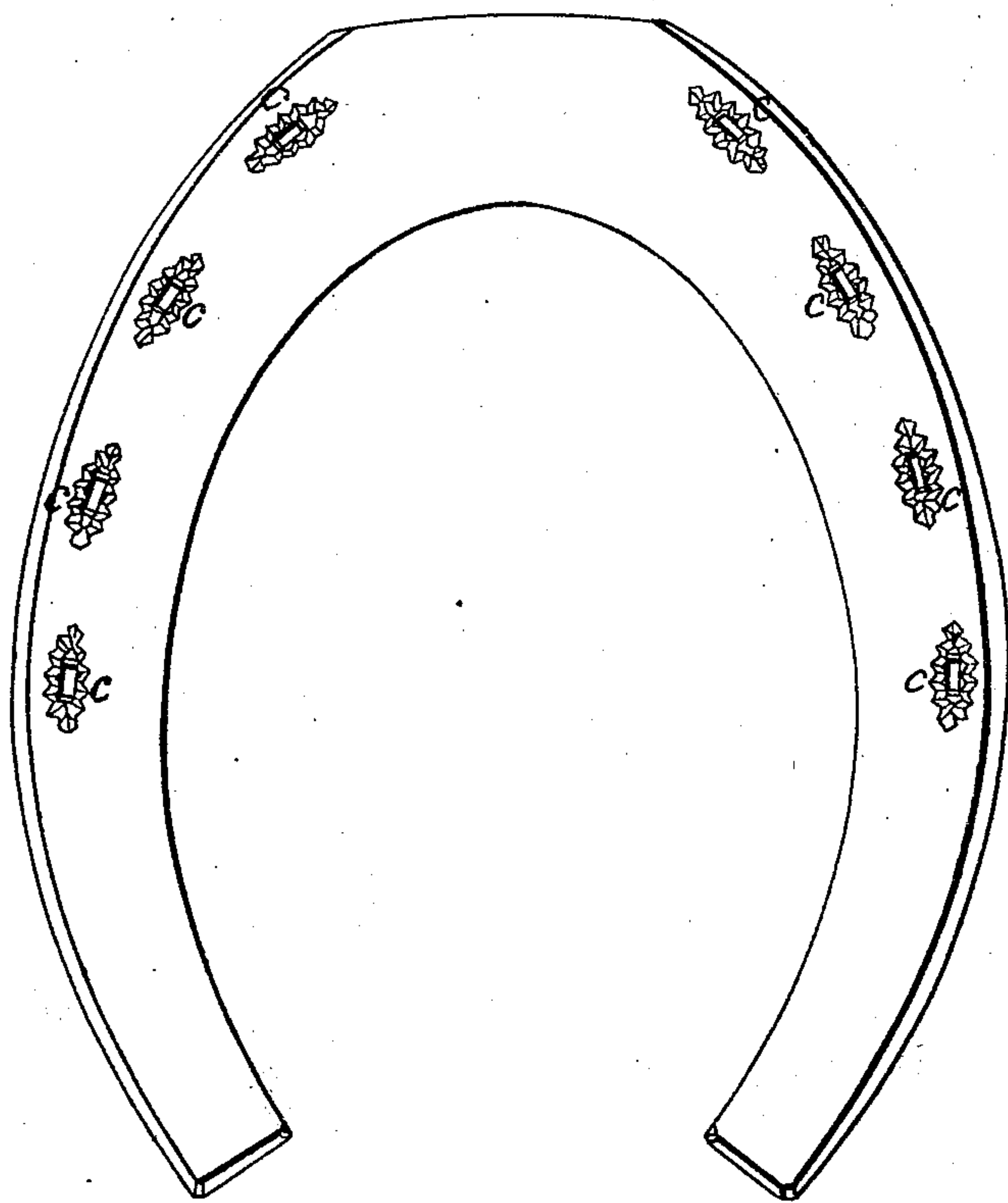
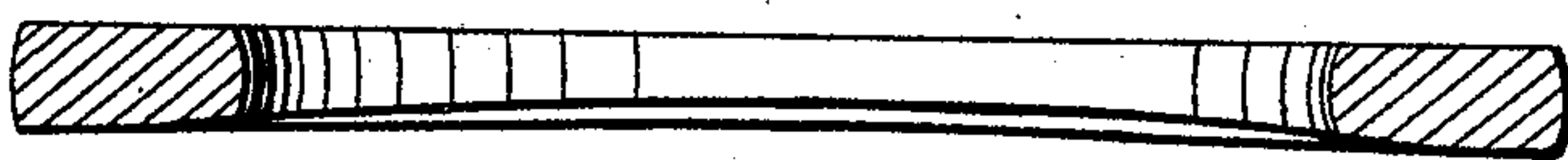


Fig. 2.



Fig. 3.



Witnesses;

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UNITED STATES PATENT OFFICE.

GEORGE CUSTER, OF MONROE, MICHIGAN, ASSIGNOR TO HIMSELF, CHARLES TOLL, AND JOHN PAXTON, OF SAME PLACE.

HORSESHOE.

Specification forming part of Letters Patent No. 48,618, dated July 4, 1865.

To all whom it may concern:

Be it known that I, GEORGE CUSTER, of Monroe, in the county of Monroe and State of Michigan, 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 same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents the face of a horseshoe after my plan. Fig. 2 represents a section through some of the countersinks or crease and the nail-holes; and Fig. 3 represents a section across the shoe, to show the swaged form of that face of it that sets against the hoof.

Similar letters of reference, where they occur in the separate figures, denote like parts in all the drawings.

My invention consists, first, in corrugating the countersink or crease in the shoe at or around the place where the head of the nail comes when the shoe is driven on, so that the edges or projections of the corrugations may batter down into or against the head of the nail, and thus more firmly unite the two; and my invention consists, further, in making a shoulder between the sides of the countersink or crease and the nail-hole for the shoulder on the under side of the head of the nail to rest against to further give a firm support between the shoe and nail.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

I prefer to use a countersink, *a*, such as described and represented in my patent of the 28th June, 1864; but my present invention may be used in connection with a crease made in the usual form, so that I do not confine myself to either form of countersink, whether it be local around the nail-hole or continuous throughout the series of nail-holes.

With a suitable tool prepared for the purpose I form the countersink or crease, and by the same, or by another tool, make the corrugations *c* at and around the nail-hole, or where the nail-hole is to be made, so that when the nail

is driven in and its head comes against these corrugations there shall be a clinching or interlocking of the metals to firmly unite the two. I call them "corrugations" from their form; but these projections or depressions may be made in any regular or irregular form that will present lines or points of thin metal to the head of the nail, and that are capable of being battered down by the driving in of the nail, and thus embed themselves in the metal of the nail to make what might be termed a "clinched union of the metals." Between the sloping or inclined sides of the countersink, or of the crease and the nail-hole, I form a shoulder, *e*, against which the shoulder on the under side of the nail-head takes, to give more contact-surface between the shoe and the nail-head, and so better and more firmly secure the shoe to the hoof of the animal.

It is immaterial as to the order in which the several operations of countersinking, creasing, corrugating, and punching are done, or whether they be done singly, or two or more of them at a single operation, as the machinery for accomplishing these ends may be variously devised and arranged for this purpose, or the tools may be made to accomplish one or more of the operations, as may be preferred or found desirable.

Having thus fully described the nature of my invention, what I claim therein as new is—

1. Corrugating or otherwise roughening the countersink or crease at and around the nail-hole, so that when the head of the nail is driven against them there shall be a more perfect contact of metal between them, substantially as and for the purpose described.

2. Forming a shoulder between the inclined sides of the countersink or crease in a horseshoe and the nail-hole, as and for the purpose substantially as described.

GEO. CUSTER.

Witnesses:

WALTER W. PRENTICE,
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