

(No Model.)

C. W. CRANNELL.  
NAILLESS HORSESHOE.

No. 492,460.

Patented Feb. 28, 1893.

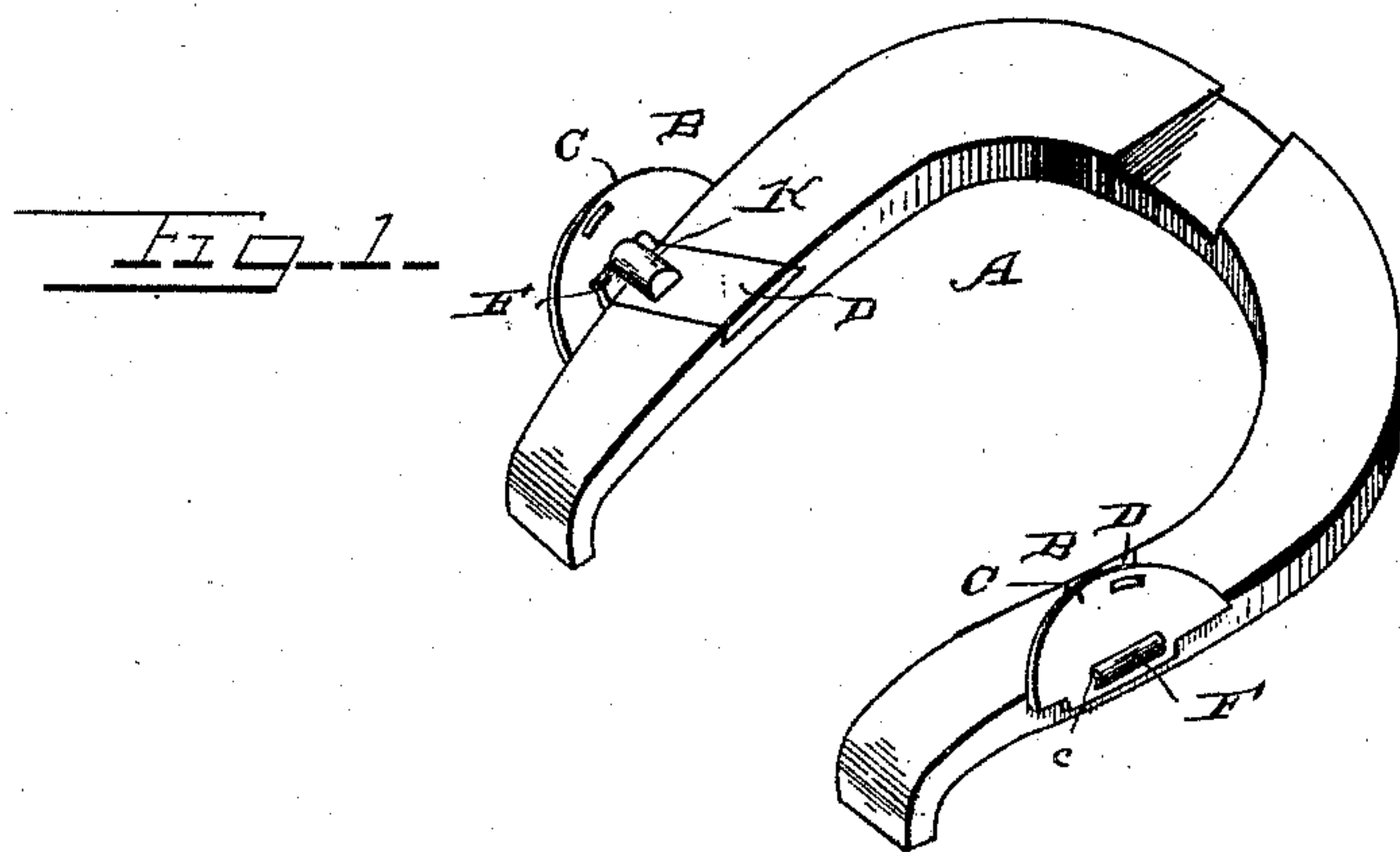


FIG. 2



FIG. 5

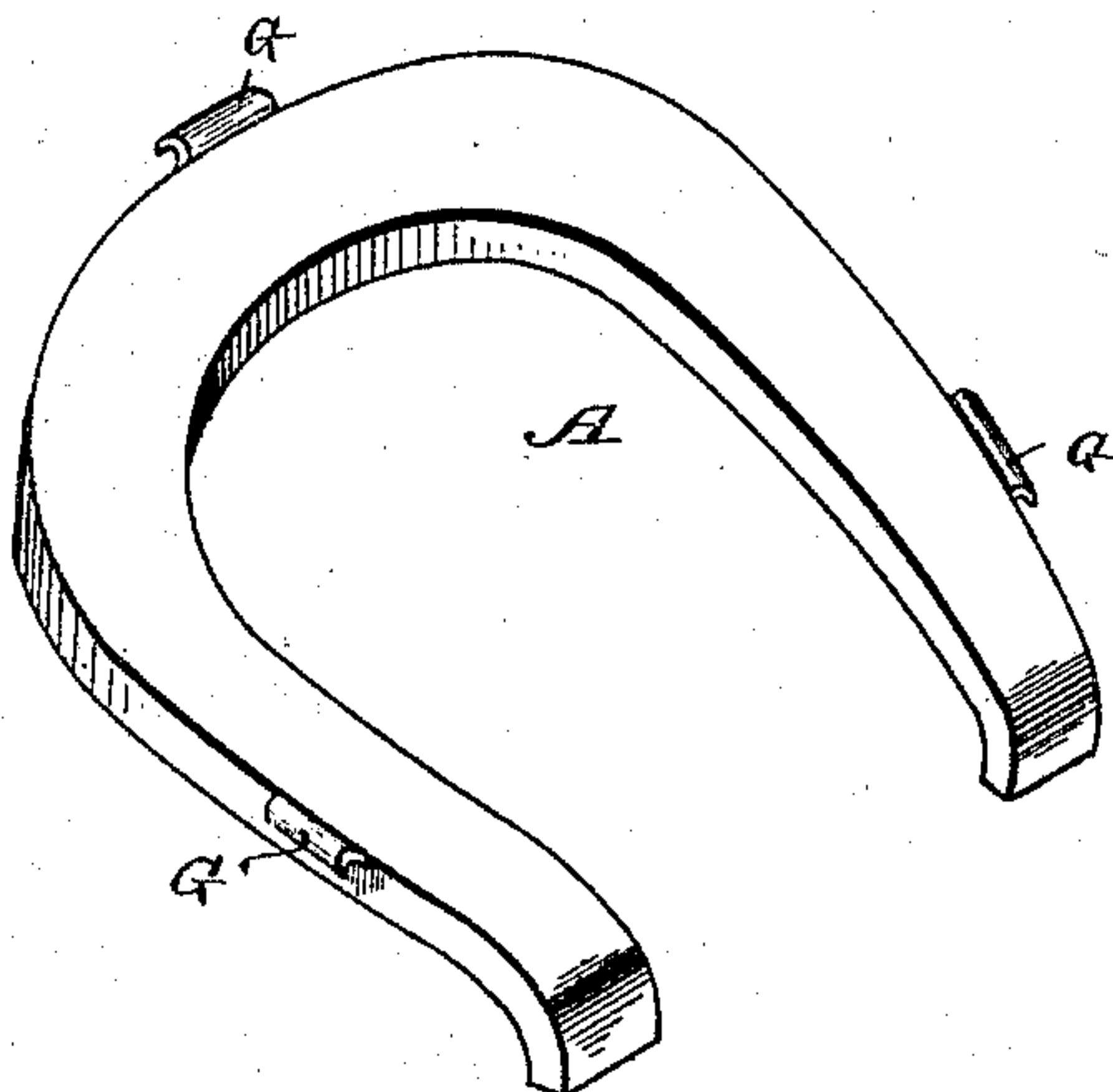


FIG. 3



FIG. 4



Witnesses:  
Jesse Heller.  
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Inventor:  
Chas. W. Crannell  
by E. W. Anderson  
his Attorney.

# UNITED STATES PATENT OFFICE.

CHARLES W. CRANNELL, OF OBERLIN, KANSAS, ASSIGNOR OF ONE-HALF TO  
D. E. GROBE, OF SAME PLACE.

## NAILLESS HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 492,460, dated February 28, 1893.

Application filed May 17, 1892. Serial No. 433,335. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES W. CRANNELL, a citizen of the United States, and a resident of Oberlin, in the county of Decatur and State of Kansas, have invented certain new and useful Improvements in Nailless Horseshoes; and I do 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a perspective view of the shoe with one clip removed. Fig. 2 is a detail of one of the clips. Figs. 3 and 4 are details of the lugs. Fig. 5 is a perspective view showing modified form of fastening.

This invention has relation to certain new and useful improvements in nailless horse shoes, and it consists in the novel construction and combination of parts, all as hereinafter specified.

The invention particularly consists in the novel construction and of the clips for attaching the shoe to the hoof, and the manner in which said clips are attached to the shoe, being an improvement in some respects over the devices set forth in my pending applications, Serial Nos. 431,272 and 435,273, filed April 30, 1892, and June 2, 1892, respectively.

The object I have in view, is to simplify the clip and render it capable of being more conveniently applied to the shoe, and at the same time provide for its rigid attachment.

In the accompanying drawings, the letter A designates a horse shoe, which may be either plate or calked, and which is of the ordinary construction with the exception that the nail grooves and perforations are omitted.

B refers to one of the clips, three of which are usually employed, one at each side portion near the heel, and one at the center of the toe portion.

In Fig. 2 I have shown this clip as comprising a metallic plate C of somewhat semi-oval form, concaved on its inner face to fit the hoof. At the lower edge of this plate is a central downward extension having therein a transverse slot or opening c.

D designates that portion of the clip which is attached directly to the shoe, and consists of a small dovetailed lug or plate which slides into a corresponding form of groove cut obliquely in the upper face of the shoe, in which it is held in such a manner that it cannot be displaced, except by a direct movement in a direction opposite to that of its insertion. The groove which receives the front clip is preferably however, cut straight, as shown, instead of obliquely as are the side clips. On the outer end of this lug or plate is a downwardly turned hook-like projection F, which is designed to engage the transverse slot or opening c and form the connection between the two parts. The upper face of the lug or plate may also have a flange or projection K to form an additional bearing for the plate C, as shown in Fig. 1. Or this may be omitted as indicated in Fig. 5. The dovetail may be of any well known form. The lug or plate D may be arranged to slide into its seat from the inner, instead of the outer, edge of the shoe. This form is shown in Fig. 1, wherein the groove for the front clip is shown as being wider at the inner edge of the shoe than it is at the outer edge.

If desired, F may be formed integral with the shoe said hooks being arranged to engage with the transverse opening or slot c. By this construction, the lugs D are done away with.

The clips are designed to be held to the hoof by a suitable arrangement of straps, as fully set forth in either of my pending applications above referred to, said strips being connected at one end to the clips. It will be apparent that as long as these straps are fastened in their locking position, the clip plates C, cannot unhook from the lugs or shoe. But as soon as the tension of the strap is released, they may be easily removed, and applied to a new shoe.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. In a nailless horse shoe, the combination with the shoe having at its toe portion and at each intermediate side portion a clip-lug or hook F, of the semi-oval concave clip plates, one for each of said lugs and having each a central downward projection formed with a



transverse slot therein designed to engage one of said lugs, substantially as specified.

2. In a nailless horse shoe, the combination with the shoe having the dove-tailed seats or  
5 recesses therein, the clip lugs arranged to slide and lock in said recesses or seats, and the hooks or projections on said clip lugs, of the clip plates concaved to fit the hoof, and  
10 having openings in their lower portions whereby they are adapted for detachable connection with said hooks or projections, substantially as specified.

3. The herein described clip-attachment for nailless horse shoes, comprising the concaved

clip plates C having transverse openings or  
15 slots in their lower portions, and the clip lugs of dove-tailed form for engagement with the shoe, and provided each with a hook arranged to engage said opening or slot, substantially  
20 as specified.

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

CHARLES W. CRANNELL.

Witnesses:

DANIEL W. ALLEN,  
E. E. JOSAFE,  
A. W. COOK.