

(No Model.)

G. T. CHAPMAN.
HORSESHOE.

No. 483,209.

Patented Sept. 27, 1892.

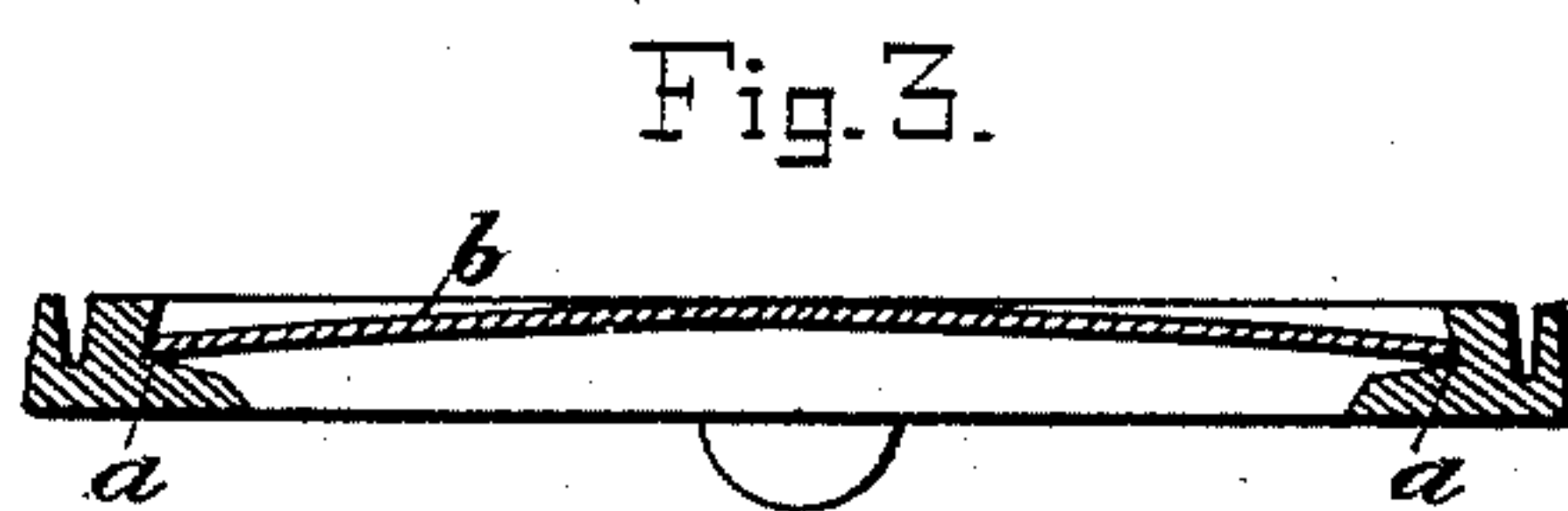
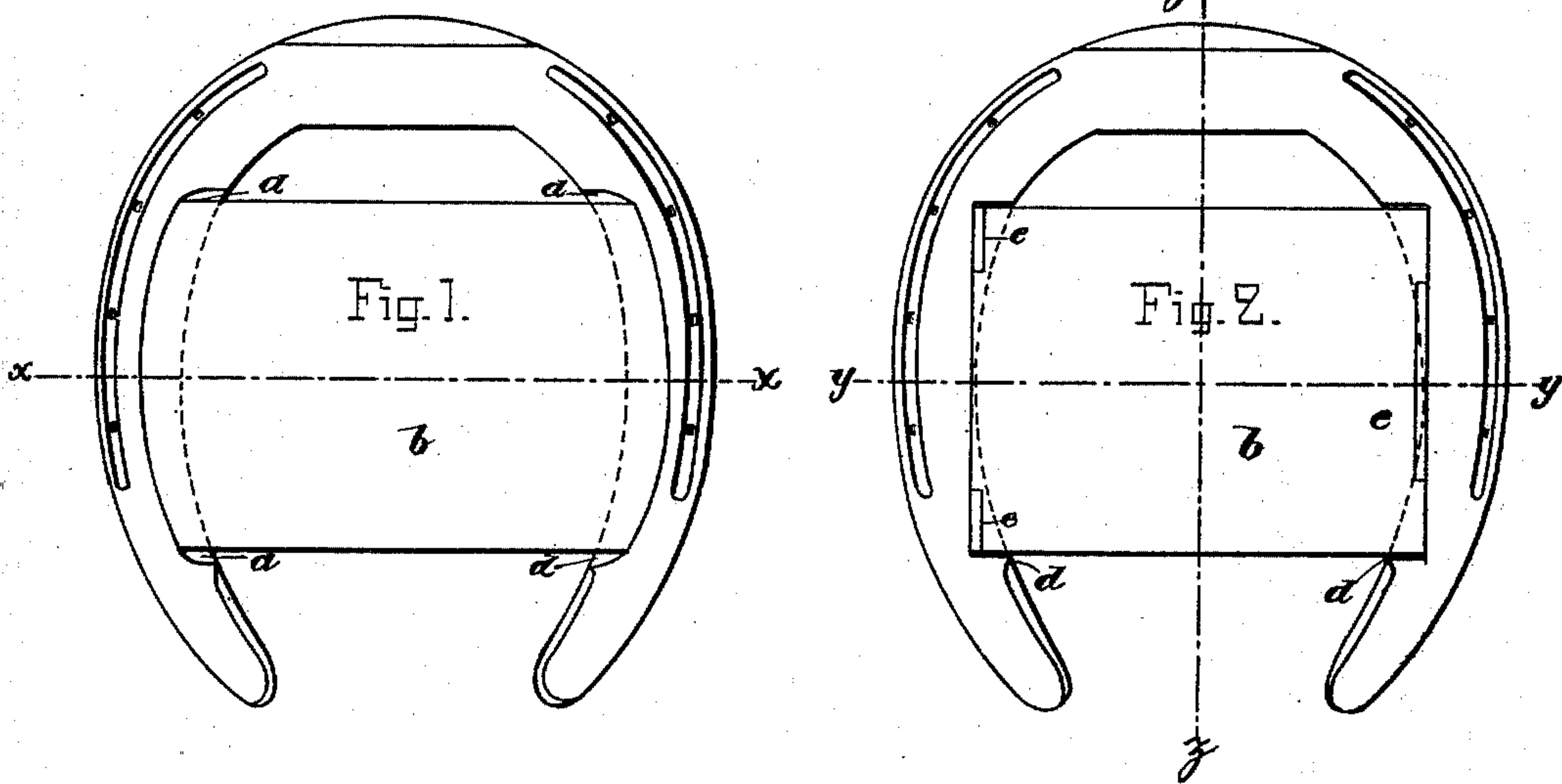


Fig. 4.

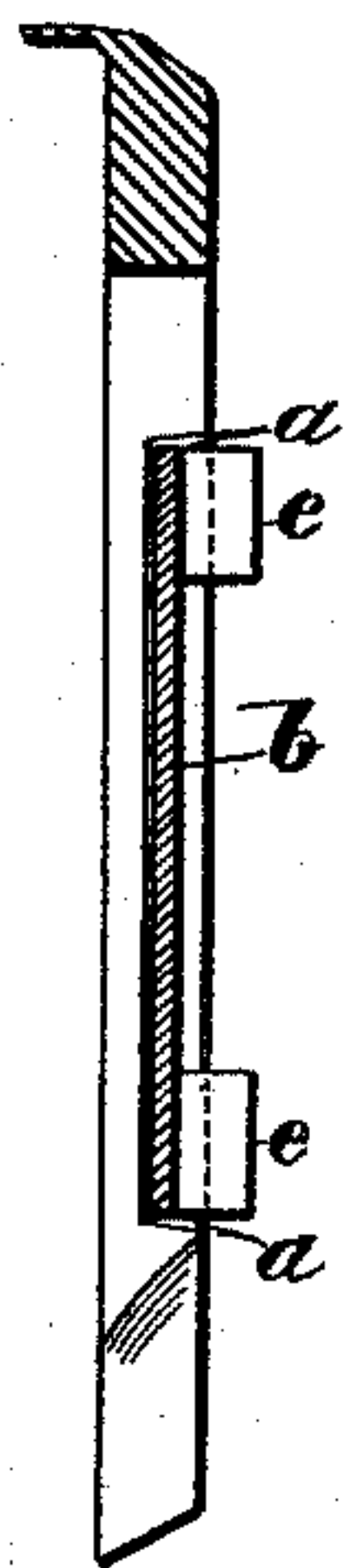


Fig. 5.

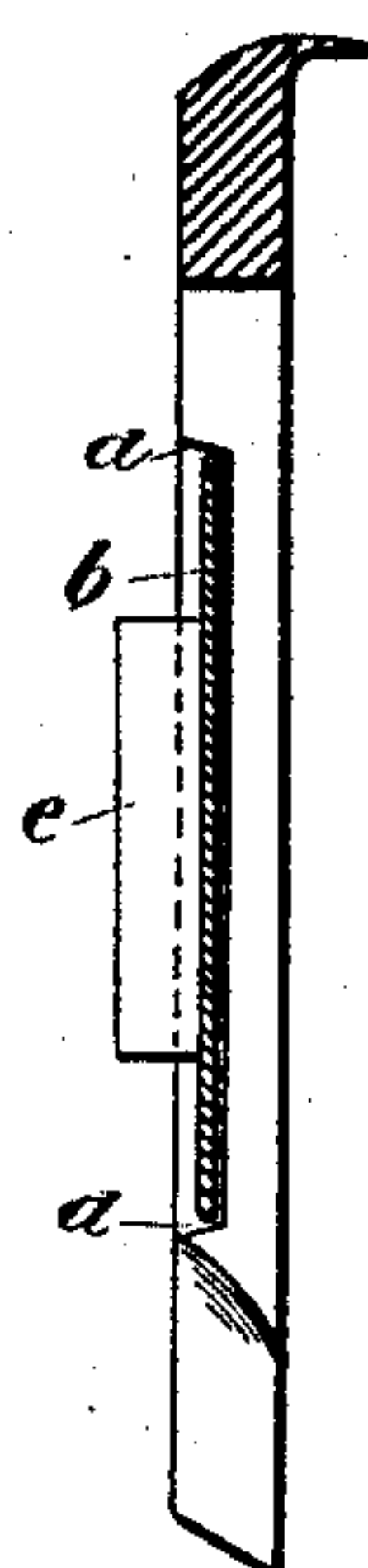
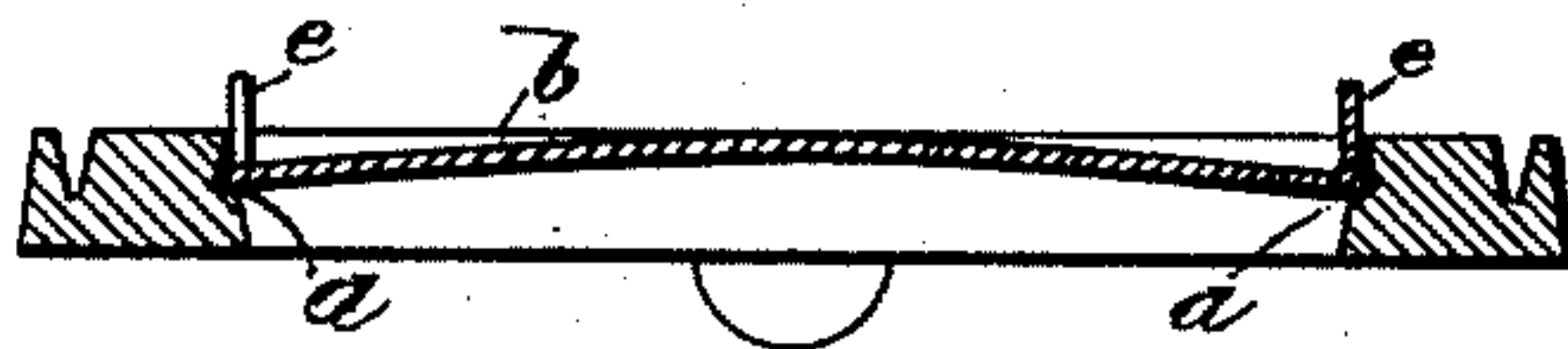


Fig. 6.



WITNESSES.

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GEORGE T. CHAPMAN, OF WHITE PLAINS, ASSIGNOR OF ONE-HALF TO
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HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 483,209, dated September 27, 1892.

Application filed May 1, 1889. Serial No. 309,140. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. CHAPMAN, a citizen of the United States, residing at White Plains, in the county of Westchester and State of New York, 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 appertains to make and use the same.

My invention consists of an improved contrivance for the attachment of a guard-plate to a shoe for the protection of the bottom of the foot when it is tender and sensitive, as when in some processes of treatment it is necessary to detach and remove the "shed" and a large part of the thickness of the sole, all as hereinafter fully described, reference being made to the accompanying drawings, in which—

Figure 1 is a plan view of an inverted shoe having a guard-plate attached according to my invention. Fig. 2 is a similar view with somewhat different lines of the connecting-joints and showing how the guard-plate may also be made with calks. Fig. 3 is a transverse section of Fig. 1 on line $x x$. Figs. 4 and 5 represent the shoe of Fig. 2 in longitudinal section on lines $z z$, showing both of the parts. Fig. 6 is a transverse section of Fig. 2 on line $y y$.

I make the shoe with slightly undercut or dovetail rabbets a in the inner lower corners of the sides and extending along them the length of the required width of the guard, which is about half the length of the shoe, more or less, and provide a steel guard-plate b , slightly longer than the length from bottom to bottom of the rabbets, and insert the same by first shortening it through springing it, as indicated by the curves in Figs. 3 and 6, then placing it in the rabbets and relieving it of the springing force, and allowing it to elongate and bind itself in its position by the resilient power of the plate, the length of the plate and the resilient power of the plate being properly gaged to insure the retention of the plate in its position for use.

In practice a clamp contrived to grip the plate between two bearings on one side near the ends, respectively, and one bearing at the middle on the other side and sprung with

great force will be used for inserting and removing the plate. It will be seen that by such a construction the plate is attached more simply and much more reliably than it can be by any detachable fastenings, and the plate can be more readily applied and removed at any time, which such plates are frequently required to be, and the expense of special fastening devices is avoided. The rabbets and the ends of the plate may be curved in conformity with the curves of the sides of the shoe, as in Fig. 1, or they may be in straight lines, as in Fig. 2, or in approximately straight lines. The plate may also be made with calks c either at the corners, as at the left hand of Fig. 2 and in Fig. 4, or intermediately thereto, as on the other side of Fig. 2 and in Fig. 5, simply by making the plate a little longer in those parts than is required for the fastening of the plates and bending them so as to project downward from the plate suitably for calks, the rest of the end portions of the plate being fitted into the rabbets to secure it and being ample for the purpose. In practice the ends of the plate will be beveled a little more acute than the angle of the rabbets to insure such acute bearing of the ends of the plates in angles of the rabbets as will effectually prevent any slackness at any point, and thereby avoid the play and rattle of the plate that otherwise occurs.

I am aware of the expanding shoe described in the Patent No. 195,797, dated October 2, 1877, in which there is an arched spring heel-expander permanently connected by the ends being inserted in deep mortises in the inner edges of the heel of the shoe, and I do not claim such a device, which is not a guard-plate. Neither is it detachable, nor can it be applied after the shoe is finished. It is a permanent fixture inserted in the mortises before the shoe is completed and thereafter remaining in the shoe. A guard-plate must be detachable, as it is only required for use at certain times, and my contrivance is specially adapted for this purpose, and this is the special feature of my claim.

What I claim, and desire to secure by Letters Patent, is—

1. The combination, with a horseshoe having the dovetail or undercut rabbit-grooves

in the inner lower edges of the sides, of the metallic guard-plate sprung into said grooves and secured therein by its resilient force, as and for the purposes set forth.

- 5 2. The combination, with a horseshoe having the dovetail or undercut rabbet-grooves in the inner lower edges of the sides, of the metallic guard-plate having one or more calks produced from a portion or portions of

its ends and sprung into said grooves and secured therein by its resilient force, as and for the purposes set forth.

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

GEO. T. CHAPMAN.

Witnesses:

W. J. MORGAN,

A. P. THAYER.