

A. T. Ferrine,

Boot & Shoe Heel.

No. 103921.

Patented June 7. 1870.

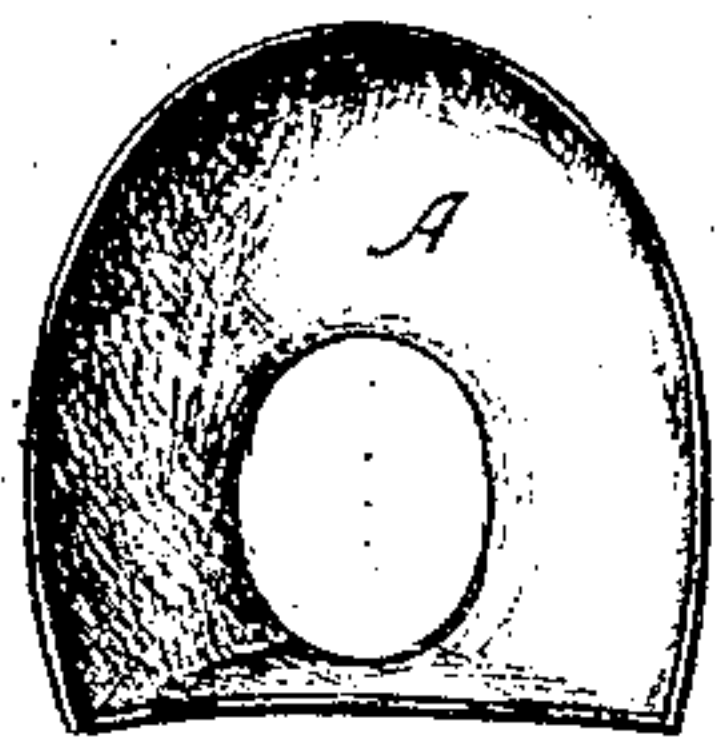


Fig. 3

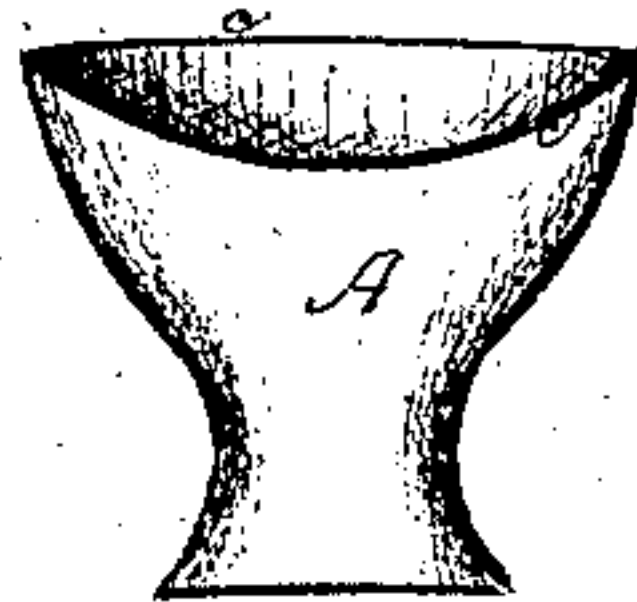


Fig. 4

Witness { *Alfred Gregory*
Robert H. Manners

Alfred T. Ferrine Inventor

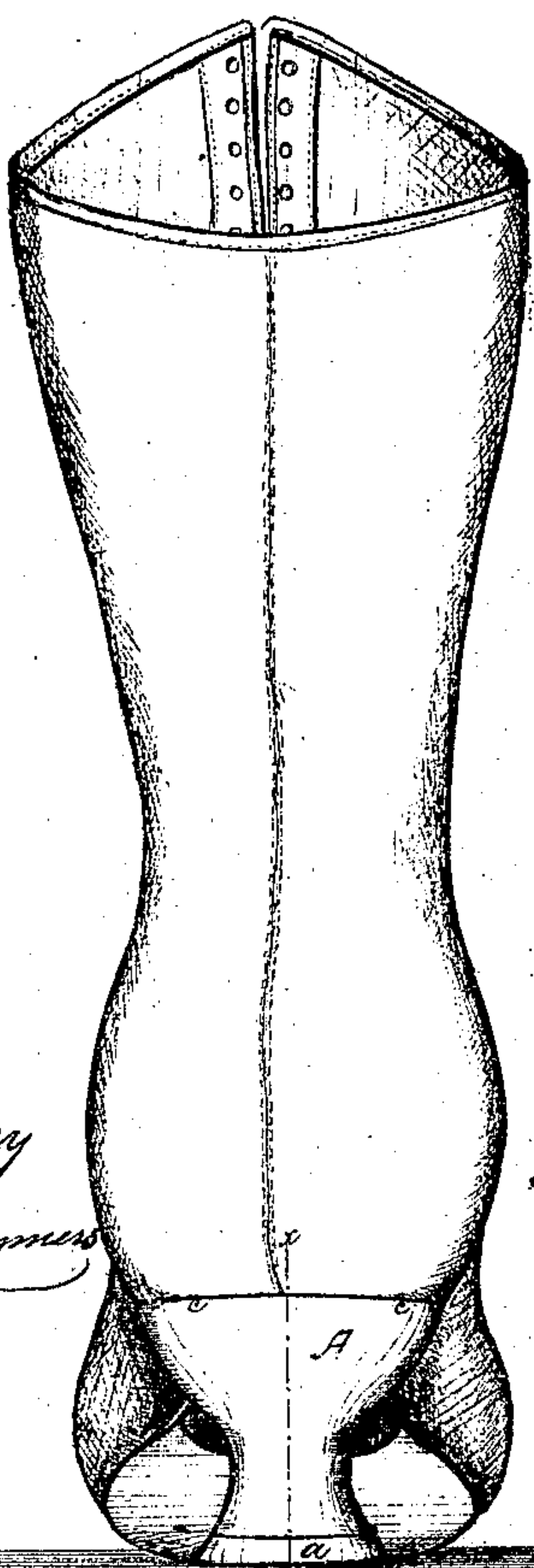


Fig. 1

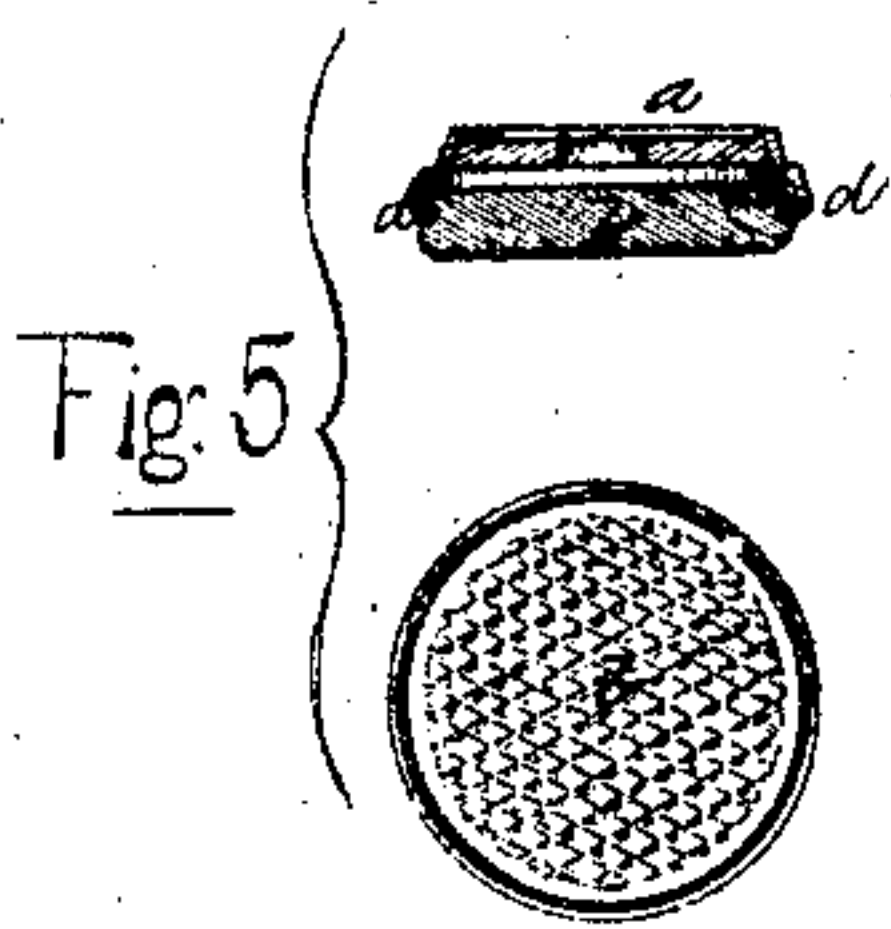


Fig. 5

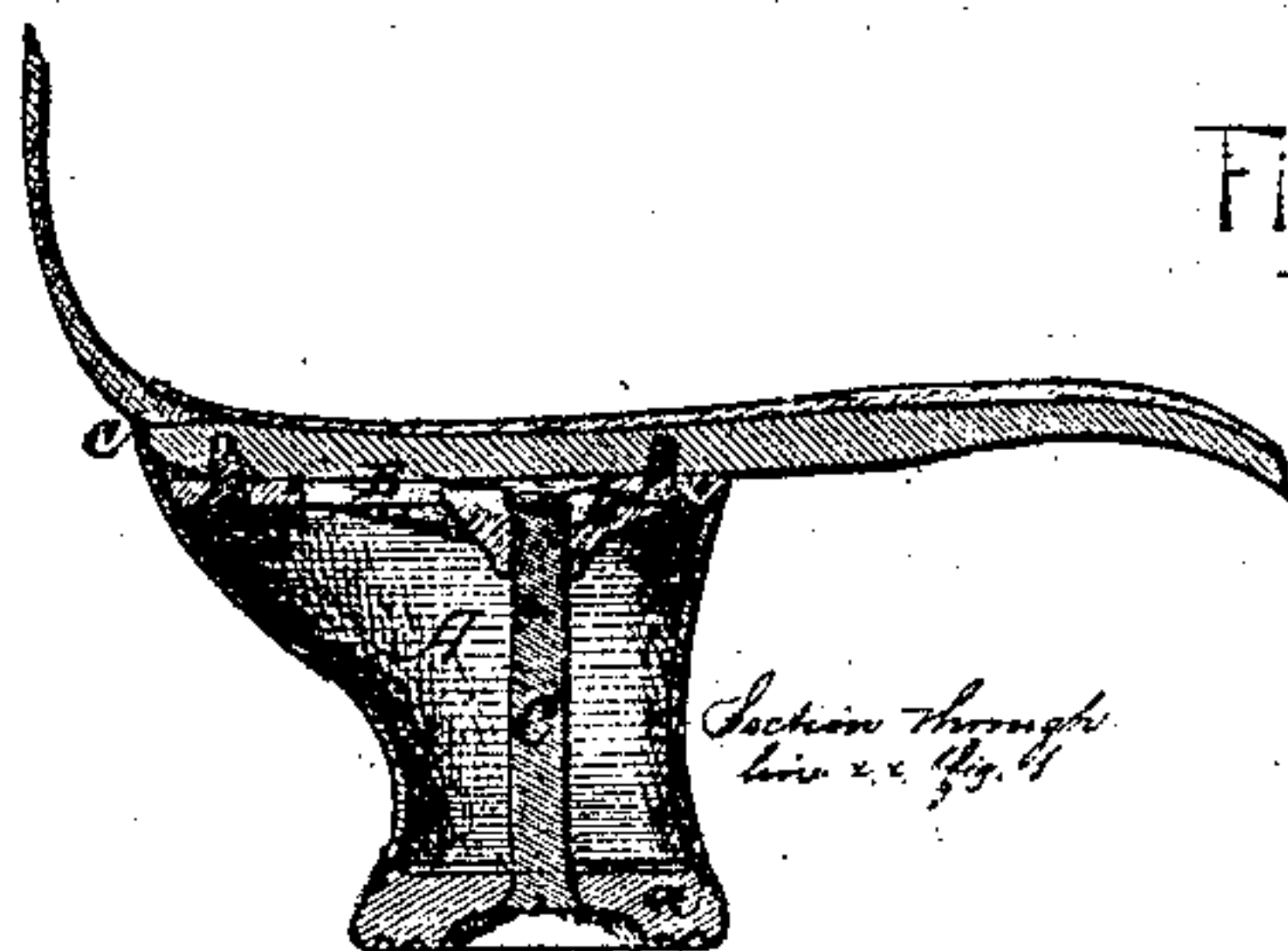


Fig. 2

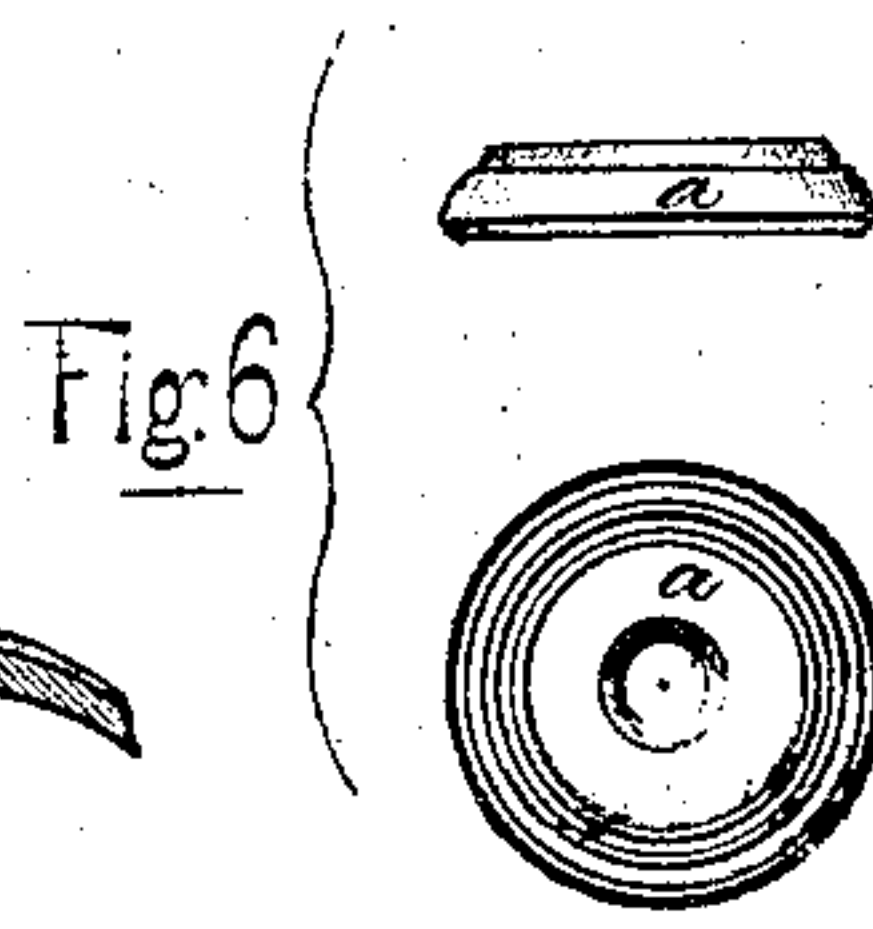


Fig. 6

United States Patent Office.

ALFRED T. PERRINE, OF LOUISVILLE, KENTUCKY.

Letters Patent No. 103,921, dated June 7, 1870.

IMPROVEMENT IN METALLIC BOOT AND SHOE-HEELS.

The Schedule referred to in these Letters Patent and making part of the same.

I, ALFRED T. PERRINE, of Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in the Construction of Heels for Boots and Shoes, of which the following is a specification.

Nature and Object of the Invention.

My invention consists in the construction, combination, and arrangement of certain parts which compose a metallic heel for boots and shoes, as will be fully set forth hereafter.

Description of the Accompanying Drawing.

Figure 1 is a back view of my improved heel, applied to a lady's boot.

Figure 2 is a vertical section of the same through the line *x x*, fig. 1.

Figure 3 is a top view of the shell.

Figure 4 is a front view of the same, taken from the right-hand side of fig. 2.

Figures 5 and 6 are views of the heel-plates or tips.

General Description.

The shell A, which forms the heel, is constructed of a single piece of sheet metal, struck up into the required shape by means of dies and a power-press. Its rim, *c*, is arranged to embrace and cover the entire edge of the sole at the heel, as shown in figs. 1 and 2, and its lower rim is finished to fit and form a perfect joint with the heel-plate or tip *a*.

This plate *a* is formed by means of dies from a piece of metal, in a similar manner to the shell before described, and is so shaped as to conform to the contour of the heel, and present a finished appearance. It is countersunk to receive the screw C, and it is corrugated or roughened upon its under surface, to prevent slipping. The form of this plate is clearly represented in fig. 6.

Another form of plate also used is represented in fig. 5. In this, the plate is arranged to receive and

hold a pad, *b*, of elastic material, and it is constructed with a flange, *d*, which fits into a groove in the circumference of the pad, and holds it in place by virtue of the elastic nature of the latter. These pads *b* are corrugated upon their under surface, and may be formed either of rubber or of any other suitable elastic material.

The tips and pads can be removed and changed at pleasure, and a new surface may be presented at will to that part of the heel subject to the greatest wear, by turning the plate upon the screw C, as a center, thus preventing the heel from running over or wearing unevenly.

This heel, which is an improvement upon the invention patented to me on the 16th of March, 1869, No. 88,000, is firmly secured to the boot or shoe by parts formed similar to those employed in the above invention. The screw C passes through the tip *a*, and screws into the base-plate B, secured to the sole.

Claims.

I claim as my invention—

1. The combination with the metallic base-plate B, of the heel-shell A, constructed of a single piece of seamless sheet metal, the tip-plate *a*, and bolt C, all constructed as herein described and set forth.
2. The combination, with the base-plate B and heel-shell A, of the plate *a*, provided with an inwardly-projecting flange, *d*, and elastic pad *b*, all constructed as herein described and set forth.
3. The combination, with a heel-shell constructed of a single seamless piece of sheet metal, and the plate *a*, provided with an inwardly-projecting flange, of a grooved elastic pad, all constructed as herein described and set forth.

ALFRED T. PERRINE.

Witnesses:

EDWARD E. OSBORN,
ROBERT H. MANNERS.