

C. T. GRILLEY.
Shoe-Tip or Protector.

No. 166,769.

Patented Aug. 17, 1875.

Fig. 1.

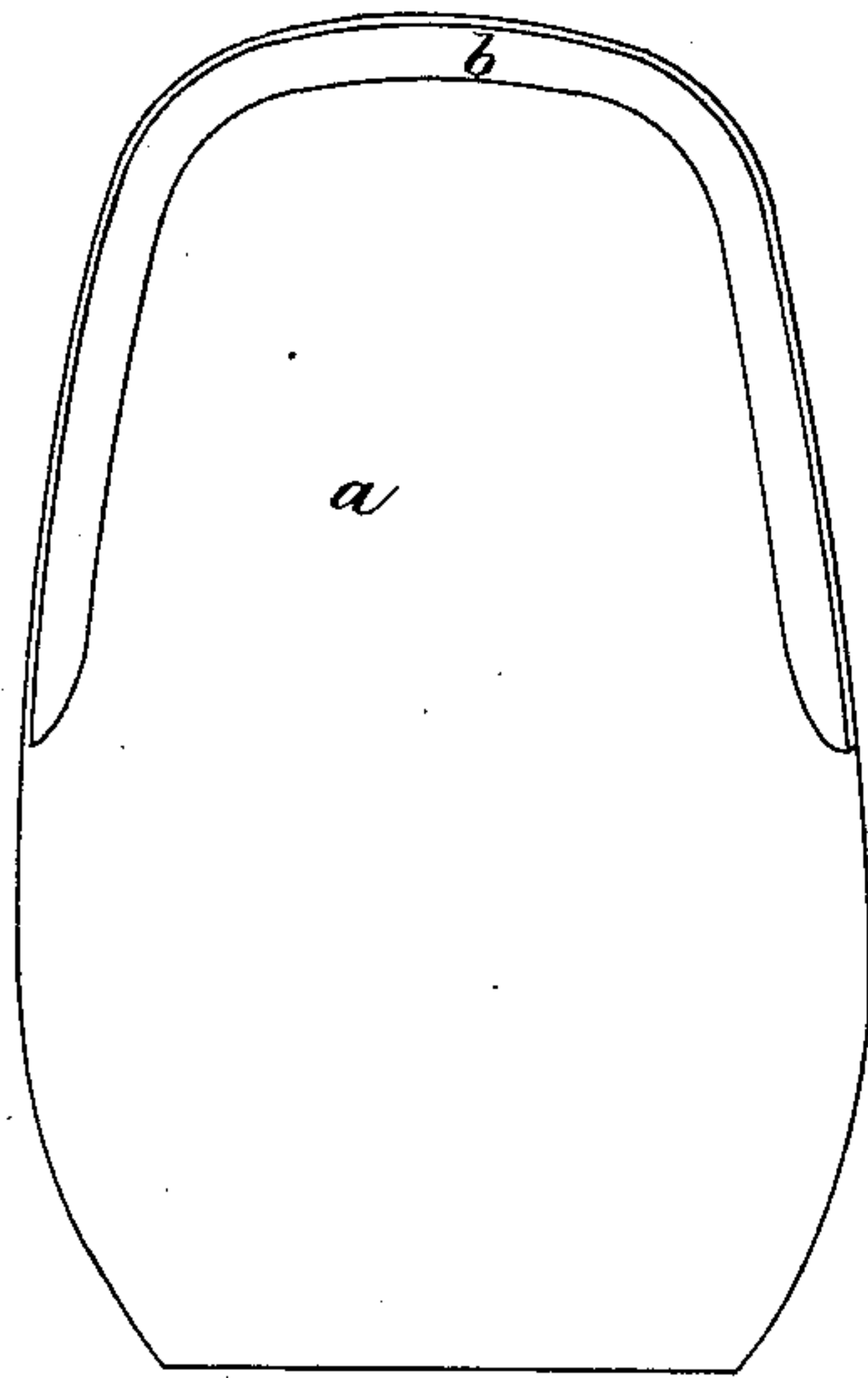


Fig. 5.



Fig. 6.



Fig. 2.

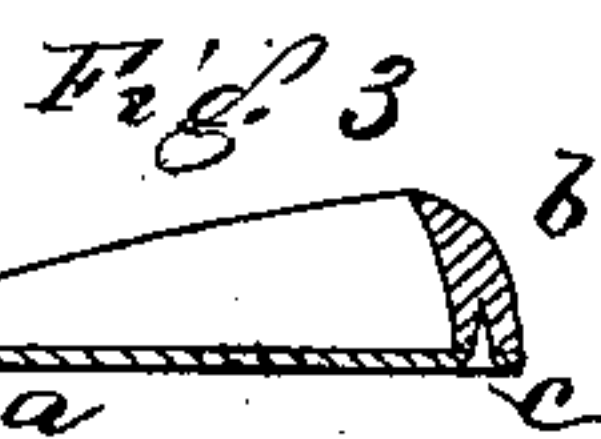
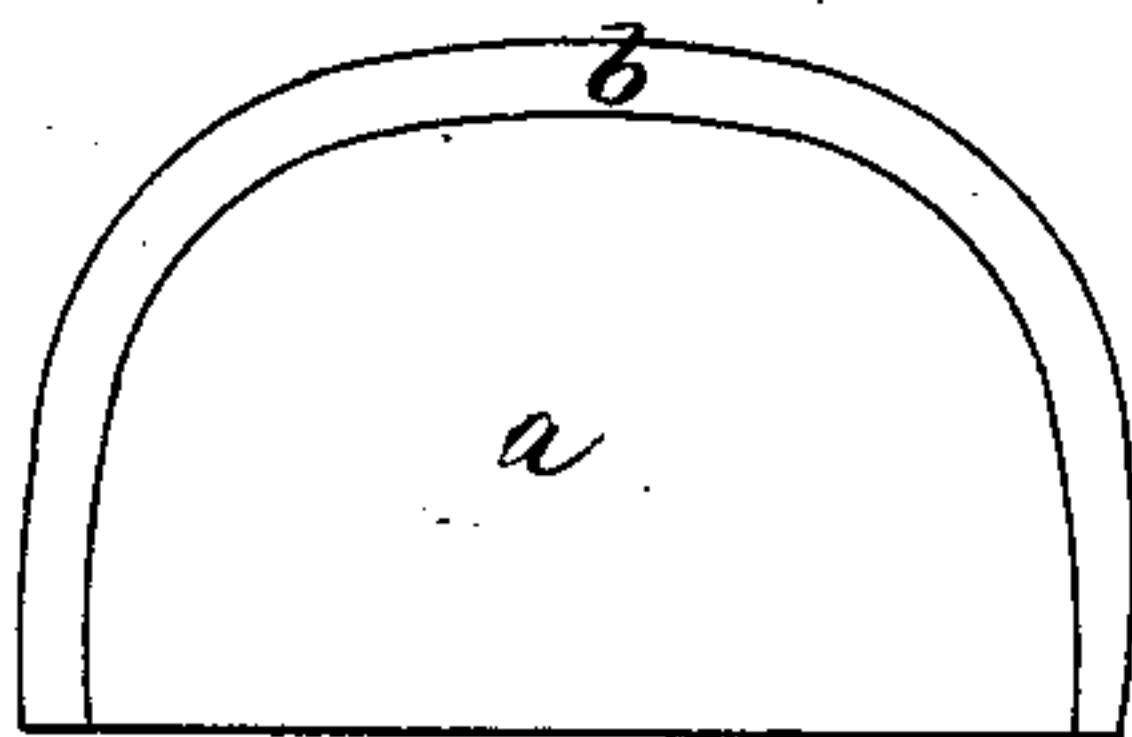
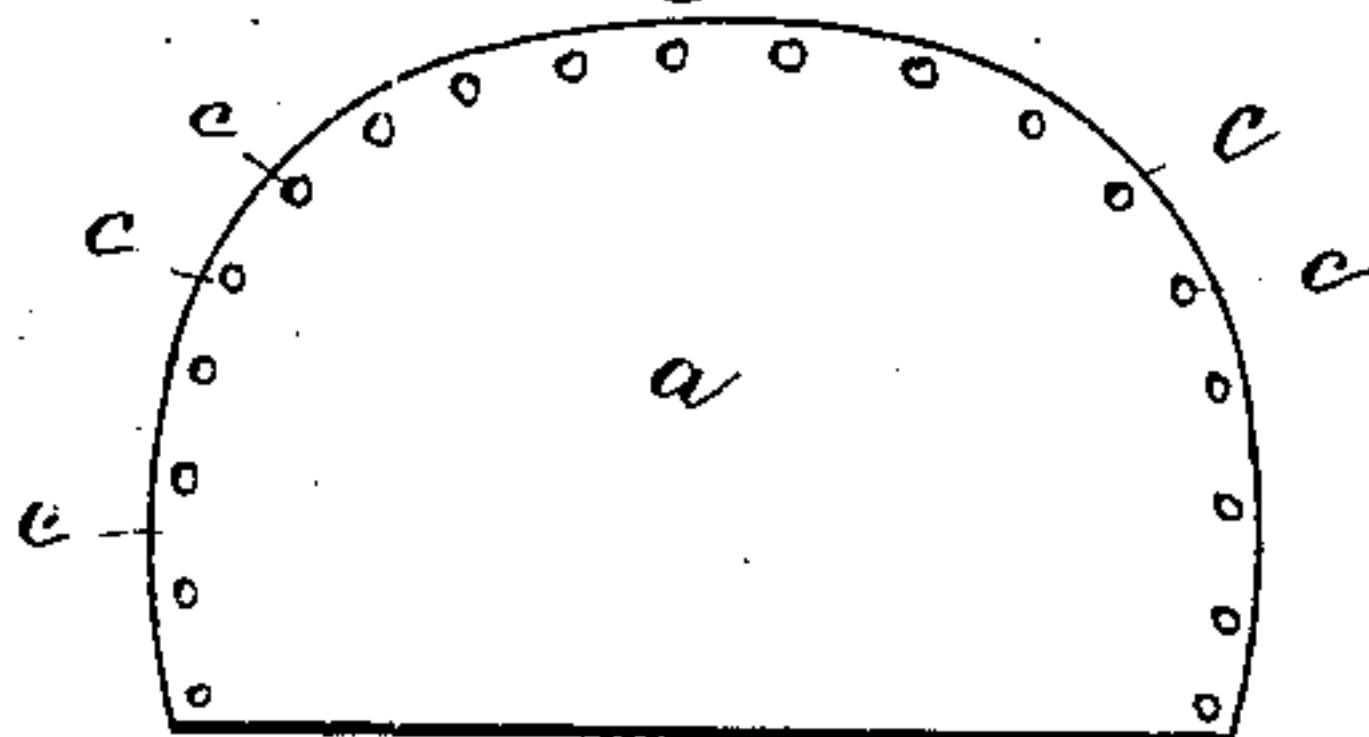


Fig. 4.



WITNESSES.
S. H. Latimer.
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UNITED STATES PATENT OFFICE.

CHARLES T. GRILLEY, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN SHOE TIPS OR PROTECTORS.

Specification forming part of Letters Patent No. **166,769**, dated August 17, 1875; application filed June 24, 1875.

CASE A.

To all whom it may concern:

Be it known that I, CHARLES T. GRILLEY, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Shoe Tip or Protector, of which the following is a specification:

This invention relates to improvements in shoe tips or protectors for uppers of boots and shoes; and consists in a shoe tip or protector built up or composed of pieces of leather, united together by means of rivets, nails, pegs, stitches, or cement; also, in a shoe tip or protector made up of two or more pieces of leather, united as hereinafter described, and presenting the edge of the leather as the abrading surface; also, in the process of manufacturing such tips or protectors, as hereinafter described.

Figure 1 represents a top view of one form of tip or protector, adapted to extend about the side of the upper, and with an extended foundation-piece; Fig. 2, a tip with a smaller foundation-piece, and which does not extend so far about the toe of the upper; Fig. 3, a section through Fig. 2; Fig. 4, an under-side view; Fig. 5, a view of the protecting-strip before and after being fashioned to shape; and Fig. 6, a modified form of protector-strip.

The foundation-piece *a* for the tip or protector is composed of a piece of leather, of thickness and size adapted to the shoe to which it is to be applied; and it may extend under the toe of the upper, and between it and the sole, and from the toe back to the heel; or it may terminate at any intermediate portion of the shoe. This foundation-piece *a* is shaped to correspond with the form of the upper or of the sole, and on it is placed a strip of leather, *b*, which is called the protecting-strip for the upper, such strip being in one or more thicknesses, and usually of scrap or waste leather, and, besides extending around the toe, as shown in Figs. 1 and 2, may extend as far along the sides of the upper or sole and toward the heel as desired.

Before applying this protecting-strip to the foundation-piece, I prefer to cut its edges, by means of any suitable tool or cutter, so that one portion will be adapted to project or over-

hang toward the upper, and to present a rounded surface for the outside or wearing portion of the protector. This protecting-strip is preferably made thicker and higher than the size the protecting-edge is to have when subsequently finished by condensation. When the strip *b* is united to *a* the protector is to be consolidated to the desired size to make a hard, compact, solid tip, and this condensation may be more or less in degree, as leather is capable of being compressed to about half its uncompressed state, the greater the degree of pressure to which it is subjected determining its hardness and density.

Fig. 5 shows, in its outer boundary lines, a strip of leather of substantially the shape used for the protecting-strip. The inner line shows the strip when cut on its inner edge to fit about the toe of a shoe or boot, and the outer line shows the rounded outer edge. This strip, when applied to the foundation-piece, is attached thereto by means of ordinary shoe-nails, having threaded, screw, bearded, or notched shanks, and with or without heads, or by means of common tacks, brads, or pegs, commonly used in leather-work; or the strip may be sewed to the foundation, or be united thereto by means of a water-proof cement.

In Figs. 3 and 4, *c* represents the shoe nails, screws, or pegs, which may be inserted in any well-known way; and these screws, nails, or pegs will enter from what is to be the under side of the tip or protector, as shown, and their points will preferably stop short of the upper edge of the upright part of the finished tip.

The parts thus properly attached will then be placed in a mold or female die, of the form it is desired that the tip or protector shall have when finished, and a follower or male die will then drive the leather into this mold or die, giving the tip its desired form and shape, and at the same time greatly condensing and hardening the leather, causing it to take and retain the desired position or form, and rendering it so hard that it will successfully resist the great abrasion to which a shoe tip or protector is subjected.

It is evident that the protecting-strip may

be cut by a suitable knife or cutter after the strip is attached to the foundation-piece, and the pressing may then be omitted; but the process first described is preferred and considered best. This independent strip, forming the protector for the upper, may be flanged on either its inner or outer edge, (see Fig. 6,) through which flanged part *d* the strip may be united to the foundation in any of the ways above described. This protecting-strip is applied to the foundation-piece so as to present the edge of the leather outermost as a wearing-surface; but it is evident that a very serviceable tip may be produced by applying the strip so as to present its side outermost, the wear then being with the grain of the leather.

The protecting-strip may be colored to correspond with the material used for the upper, or be made to assume any color which leather is capable of assuming.

The foundation-piece may be of metal or other suitable material, instead of leather.

I claim—

1. A shoe tip or protector built up of pieces of leather, substantially as described.

2. A shoe tip or protector for an upper, composed of two or more pieces of leather, united together, substantially as described, compressed, and adapted to present the edge of the leather outermost for a wearing-surface, substantially as set forth.

3. In the manufacture of leather tips or protectors for uppers, uniting the material to form the tips or protectors, and then compressing and hardening this leather in dies or molds, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES T. GRILLEY.

Witnesses:

G. W. GREGORY,
S. B. KIDDER.