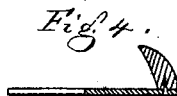
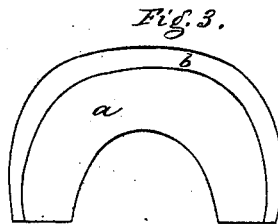
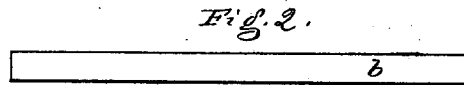
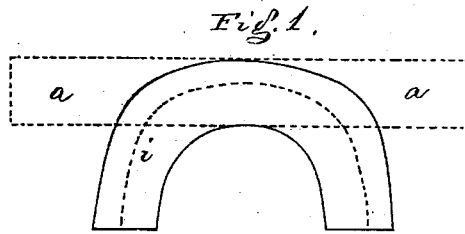


C. T. GRILLEY.  
Shoe-Tips or Protectors.

No. 166,362.

Patented Aug. 3, 1875.



WITNESSES.

L. H. Latimer

W. J. Pratt.

INVENTOR.

Charles T. Grilley  
per. Lewis Gregory attys.

# UNITED STATES PATENT OFFICE

CHARLES T. GRILLEY, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN SHOE TIPS OR PROTECTORS.

Specification forming part of Letters Patent No. 166,362, dated August 3, 1875; application filed June 24, 1875.

### CASE-C.

*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 shoe tips or protectors employed to protect the toes or uppers of boots and shoes; and consists in a tip made from one or more narrow strips of leather, curved into shape to fit the toe of a boot or shoe, or to extend about the upper, and compressed or molded in dies, to cause the tip or protector to take and retain such shape, as hereinafter described.

Figure 1 represents a strip of leather to form the base, which is to project under the toe of the upper to receive the pegs, stitches, or rivets confining the tip or protector to the shoe; Fig. 2, a strip to be used for the abrading-edge; Fig. 3, a completed tip; Fig. 4, a section of the tip when composed of two strips; and Fig. 5, a cross-section, showing the form of the strip when a single strip is used.

A strip of leather, *a*, to form the base, (see dotted lines, Fig. 1,) preferably skived at its inner edge, and of one-half inch, more or less, in width, and of a length sufficient to extend about the toe or upper, and as far toward the heel as desired, is crimped and curved as heel-rands are crimped and curved, or is curved and molded in a die, to cause it to retain the shape shown in full lines in Fig. 1. A die substantially as shown in Patent No. 164,445, granted me for making leather washers, may be used for this purpose.

When bent and set into the position shown in full lines, Fig. 1, the straight strip *b*, Fig. 2, narrower than the strip *a*, and thicker than what is to be the height of the finished abrading-surface of the tip, (see Fig. 4,) is placed on the narrow bent strip *a*, (see Fig. 3,) and is confined thereto by means of any well-known kind of shoe-nails, screws, pegs, or stitches, (see the sectional Fig. 4;) and when the parts are united, the tip is placed in a mold or die adapted to receive the part *b*, and the tip is compressed into such die, by the

action of a follower or male part of the die, until it is made very hard—sufficiently hard to cause it to take and retain the shape of the mold or die, which is the shape of the toe of the upper to which the tip or protector is to be applied.

Instead of using two strips, I may take a single thick strip, (see Fig. 5,) and cut away one edge thereof, preferably skiving the edge remaining after this cutting; and such a strip is bent into a curved shape, (see Fig. 1, in which, to illustrate this modification, the dotted line *i* within the full lines represents the edge *i*' of Fig. 5,) and, so curved, the single piece is placed in a die, and subjected to a heavy pressure, or pressure sufficient to set the strip into the proper shape for a toe or upper protector.

This tip or protector is more lasting than the best of upper-leather. It presents the edge of the leather outermost, affording the greatest amount of enduring wearing-surface, and may be made from parings of soles, and narrow strips of thick sole or other suitable leather, very large quantities of which are annually produced in the manufacture of boots, shoes, &c., and which is burned or thrown away as worthless.

I do not broadly claim a tip or protector made of two pieces of leather, or of a single piece; nor do I herein claim, broadly, a compressed and consolidated tip, or a tip with the edge of the leather outermost, as these features of invention are claimed in other applications made by me, filed concurrently with this; nor do I intend to limit this invention to a tip the entire abrading-surface of which shall present the edge of the leather outermost, for the two-piece tip may have the strip forming the protecting-edge for the upper so placed on the strip *a* as to present its face, or what was one side of the hide, outermost.

A tip or protector made as described retains its position, and has no tendency to straighten out, as though the abrading-edge of the protector or tip was caused to assume an upright position, or nearly so, by bending or turning over the leather as a flange.

I claim—

1. A tip or protector for boots or shoes, com-

posed of one or more strips of leather, compressed, hardened, and conformed to the shape of a toe or upper, substantially as described.

2. In the manufacture of shoe-tips from strips of leather, bending and forming the base-strip as described, and then uniting the abrading-strip to the bent strip by means of fastenings, 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.