W. VAN WAGENEN.
Metal Shoe-Tip.

No. 196,514. Patented Oct. 23, 1877.

Fig. 1.

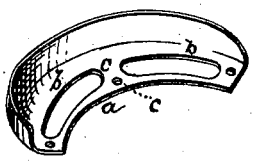
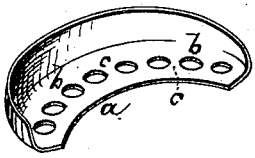


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIS VAN WAGENEN, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN METAL SHOE-TIPS.

Specification forming part of Letters Patent No. **196,514**, dated October 23, 1877; application filed November 28, 1876.

To all whom it may concern:

Be it known that I, WILLIS VAN WAGENEN, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Metal Shoe-Tip, of which the following is a specification:

This invention relates to metal shoe-tips for use on the toes of boots and shoes.

Metal shoe-tips, as now commonly made, have a protecting-rim to fit the curve of the toe, and a horizontal flange to extend between the upper and outsole. These flanges are each provided with two or three small perforations for the reception of lasting-tacks. When a sewed boot or shoe is made on a McKay machine this metal flange is penetrated by the needle, and the thread to form the stitch is drawn through the flange. In this operation needles are frequently broken, and the thread is often cut by the metal, which is a serious objection. The holes punched in the metal by the awl or needle are left with a burr and rough, and, when boots and shoes so made are worn, repeated blows on the tip cause it to cut the threads extending through it, thereby loosening the sole from the upper, destroying the integrity of the shoe, and making it of less value than a shoe without a tip.

When these tips are to be used on shoes or boots in which the sole is fastened to the upper by means of metal fasteners driven through the stock without previous perforation of the same, then it has been found that the metal flange affords often too much resistance, and that the fasteners are liable to break. Of such fasteners the so-called "cable-screw" is an example.

The object of this invention, therefore, is to obviate these difficulties; and to this end this invention consists in removing a portion of the metal of the flange in the line where the stitches or fastening devices usually pass through the flange, to permit the passage unobstructed by the metal flange of the awl and needle or fastener.

To enable others to make and use my said invention, I shall now proceed to describe the manner in which the same is or may be carried into effect; and, referring to the drawings, Figures 1 and 2 represent, in perspective, tips made in accordance with my improvement.

In the former the flange is shown to be of skeleton form—that is to say, the metal in the flange is cut away so as to leave only a rim, *a*, along the interior edge and along that portion of the flange *b* which is adjoining the tip proper or the upwardly-bent toe-protecting end.

To give strength and rigidity to such skeleton-shaped tip-flange, I prefer to leave one or more metal connections, *c*, between the rim *a* and outer flange *b*.

In Fig. 1, I have shown one, and in Fig. 2 a number, of such connections. Both in number and form these connections may be changed to suit circumstances or convenience.

It will be understood that the awl, needle, and thread, or fastener, (as the case may be,) will pass through the openings in the flange, and afford neither resistance against penetration of them nor cause abrasion of the means of fastening when inserted.

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

A metal tip the flange of which is provided with spaces for the free passage through them of the needle and thread or other means of fastening the sole to the upper of boots and shoes, substantially as herein described.

In testimony whereof I have hereunto signed my name.

W. VAN WAGENEN.

Witnesses:

J. H. COLLIER, Jr.,

W. T. NEWTON.