

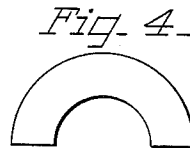
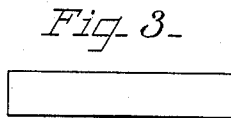
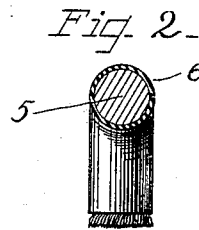
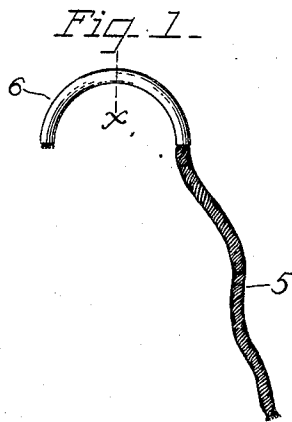
No. 671,712.

Patented Apr. 9, 1901.

A. A. SODERBERG.
SHOE LACING.

(Application filed June 7, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

ALFRED A. SODERBERG, OF WORCESTER, MASSACHUSETTS.

SHOE-LACING.

SPECIFICATION forming part of Letters Patent No. 671,712, dated April 9, 1901.

Application filed June 7, 1900. Serial No. 19,359. (No model.)

To all whom it may concern:

Be it known that I, ALFRED A. SODERBERG, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Shoe-Lacings, of which the following is a specification.

My invention relates to improvements in shoe-lacings having metal tips; and the object of my improvement is to produce a lacing specially adapted for more conveniently inserting the ends of the lacing in shoes having on each side of the opening in the upper part two flaps and intermediate lacing-studs secured to the flaps by both of their ends.

In the accompanying drawings, Figure 1 is a side elevation of one end of one of my shoe-lacings. Fig. 2 is an enlarged section thereof on the line *x* of Fig. 1. Fig. 3 is a plan view of the blank for making the metal tip of Fig. 1, the said Fig. 3 being on the same scale as the said Fig. 1. Fig. 4 is a plan view of another form of blank that may be used for making the metal tip of Fig. 1.

The body of the lacing or lacing-body 5 may be either flat or round and of any desired or ordinary kind. The metal tips 6 are substantially tubular and encircle the lacing at its ends, the same being firmly compressed thereon for securing the tips in place in any ordinary manner. Heretofore, so far as I know, such tips have been as straight in the longitudinal direction as it is practicable to make them. I make my tips curved in the longitudinal direction, so as to show about a half-circle in side view, as shown in Fig. 1. Such tips can be made from a flat sheet-metal blank like that shown in Fig. 2 by first striking the blank into a U form in end view, then inserting the lacing and striking the tip again in suitable dies to complete its round form in end view or cross-section and to properly compress the metal to the lacing, leaving the tip in the ordinary straight form. The straight metal tip thus secured to the lacing may then be struck in suitable dies to give it the curved form shown in Fig. 2.

If desired, the metal tip may be given its curved form at the start by making the blanks in the curved form shown in Fig. 4, then striking into U shape in end view, and then completing the round form and compressing the tip on the lacing. The finished tip is substan-

tially the same in either event. It is also evident that the tip can be applied to both ends of the lacing, if desired.

In threading a shoe-lacing in a shoe in which both ends of the lacing-studs are secured to the shoe between two flaps at the sides of the opening in the upper portion of the shoe my lacing will be found very convenient, as the curved tip can be readily passed around the said stud from one side thereof until the forward end projects on the opposite side of the said stud sufficiently to be readily grasped by one's fingers for drawing the tip completely through and on around other studs until the shoe is laced ready to draw up tightly and fasten in any ordinary or desired manner.

I am aware that a prior patent shows and describes a metallic lacing consisting of several metal wires with a solid metal tag at one or both ends, each tag consisting of the ends of the wire strands of the lace united and mutually incorporated by solder or molten metal, which would be impracticable if any material incapable of withstanding the heat of hot metal or of being incorporated with hot solder were used in the manufacture of the lace. These tags are described as solid and pointed and are illustrated as substantially straight, excepting in one figure, where they and the contiguous portion of the lacing appear to have been curved or bent in fastening the ends after passing the lacing through the several holes. The said tagged lacing is hereby disclaimed. In my lacing the body is soft and flexible and of some non-metallic material—as linen, cotton, silk, or leather—while the tubular tip is firmly compressed thereon and is curved, as described, before using the lacing in order to facilitate the passing of the lacing around the lacing-studs.

I claim as my invention—

The herein-described shoe-lacing, the same consisting of the body-lacing and a tubular metal tip encircling the lacing at its ends, secured thereto by firmly compressing it thereon and curved longitudinally into approximately a half-circle in side view, substantially as described.

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