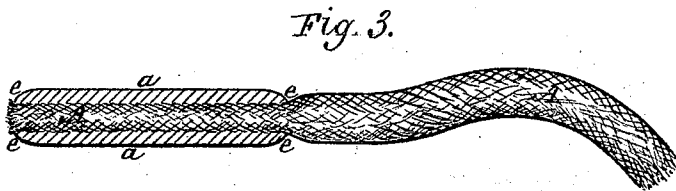
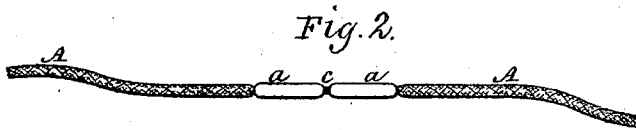
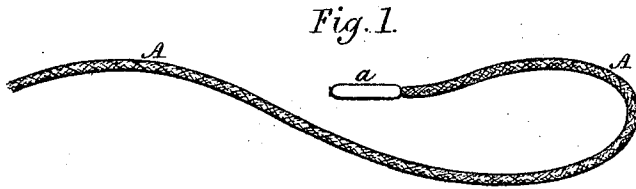


W. B. MOORE.

Metal Tips for Shoe and Other Lacings.

No. 133,540.

Patented Dec. 3, 1872.



Witnesses.
Edmund Masson
Edmund Masson

Inventor.
William B. Moore.
By Atty. A. B. Stoughton.

UNITED STATES PATENT OFFICE.

WILLIAM B. MOORE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN METAL TIPS FOR SHOE AND OTHER LACINGS.

Specification forming part of Letters Patent No. 132,540, dated December 3, 1872.

To all whom it may concern:

Be it known that I, WILLIAM B. MOORE, of the city of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Solid-Metal Tips for Corset, Shoe, and other Lacings; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 represents one of the solid-metal tips attached to a round braid or string. Fig. 2 represents the manner of casting or molding the tags upon the braid or string, as will be hereafter explained. Fig. 3 represents a section through the solid-metal tip to better show its form.

The metal tips of shoe and corset lacings have heretofore been made of thin sheet metal bent around the braid, and, with the best security thus far devised to prevent them from slipping off the braid, they are by no means reliable.

My invention consists in casting or molding the metal upon the braid, either flat or round, by which means all rough edges or ends are avoided, and the metal is so embedded in the fiber or threads of the braid as to prevent it from being drawn out of the tip or the tip from being drawn off from the braid.

To enable others skilled in the art to make and use my invention, I will proceed to describe the plan I have adopted, and which I find answers a very good purpose.

In Fig. 1, *a* represents a solid-metal tip, cast or molded upon the braid *A*, which braid may be round or flat, as desired. In casting the tips upon the braid two are made at one and the same operation, as shown in Fig. 2, there

being space enough *c* between them for separating the strings or lacers by cutting the braid and not the metal, as heretofore done, by which mode I avoid the marring or bending of the metal and leave it smooth and tapered, just as in the molds, and as seen in the section at *e*, Fig. 3.

The metal which I find it economical to use is type-metal. Any other easily-fused metal may be used, or alloy of metal. I find in practice that there is little or no danger of burning the braid with the molten metal, and that it so embeds itself in the threads or fiber of the braid or string as to avoid slipping off.

The braid may be run off from one reel onto another, and at suitable distances, according to the lengths of the lacers required. The braid is grasped in a mold which has two dies in it, so as to cast two at a time, the wall or partition between the dies leaving sufficient of the braid protected from the metal, as at *e*, Fig. 2, for a cutter to pass into or through to separate the lacers without cutting and so bending the metal. They may, however, be cast in one piece and a cut made through the metal; but they would not that way be so smooth and uniform in shape.

With suitably-devised machinery the operation of casting these tips upon the braid may be done quickly and cheaply.

What I claim is—

Corset, shoe, or other lacings having solid-metal tips cast or molded upon them, substantially in the manner and for the purpose described.

W.M. B. MOORE.

Witnesses:

A. B. STOUGHTON,
EDM. F. BROWN.