

H. S. CUSHMAN.  
SHOE-SOLE FASTENING.

No. 169,894.

Patented Nov. 16, 1875.

Fig. 1.

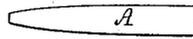


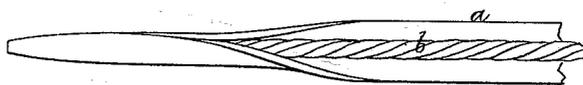
Fig. 2.



Fig. 3.



Fig. 4.



Witnesses

S. W. Piper  
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by his attorney

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# UNITED STATES PATENT OFFICE.

HENRY S. CUSHMAN, OF MILFORD, MASSACHUSETTS.

## IMPROVEMENT IN SHOE-SOLE FASTENINGS.

Specification forming part of Letters Patent No. 169,894, dated November 16, 1875; application filed August 26, 1875.

*To all whom it may concern:*

Be it known that I, HENRY S. CUSHMAN, of Milford, of the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Shoe-Sole Fastenings; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side view, Fig. 2 a longitudinal section, and Fig. 3 a transverse section, of a fastening as made in accordance with my invention. Fig. 4 is a side view of it in the process of formation.

It is composed of a metallic tubular nail, and a water-proof core filling the bore of the nail. The tube may be split lengthwise more or less on one side of it, or in various parts of it, in order that, after being driven into a sole and while being upset or clinched, it may more readily expand laterally therein.

In making the article I usually take a long and narrow strip, *a*, of metal (see Fig. 4) and bend it laterally and tightly around, in a tubular form, a waxed thread, cord, or core, *b*, after which I separate the whole into pieces of proper lengths for the fastenings, and suitably point each.

In Figs. 1, 2, and 3, A denotes the tubular nail, and B its water-proof or waxed core,

which is extended through and fills the bore of such tubular nail.

When used it is to be driven or inserted like an ordinary peg or nail into a shoe or boot sole or heel, for the purpose of fixing it to a shoe or boot.

The advantage of a tubular over a solid nail is that the former will not only upset, at point and head, better or easier, but can be spread or expanded where within a sole. The purpose of the water-proof core or filling—which I prefer to have a cord or thread covered with shoemakers' wax—is to fill the bore and prevent water from working through it when the shoe or boot sole may be in wear.

It is also advantageous in other respects.

When spread or expanded in a sole, the nail holds therein to better advantage than it would if unexpanded.

I claim—

As an improved manufacture, the metallic tubular nail or sole-fastening A, provided with the water-proof core B arranged in it, all being substantially as represented and described.

HENRY S. CUSHMAN.

Witnesses:

R. H. EDDY,  
S. N. PIPER.