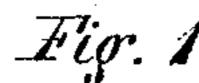
Foots Stoe Sole.

No. 103950.

Fatented June 1. 1870.



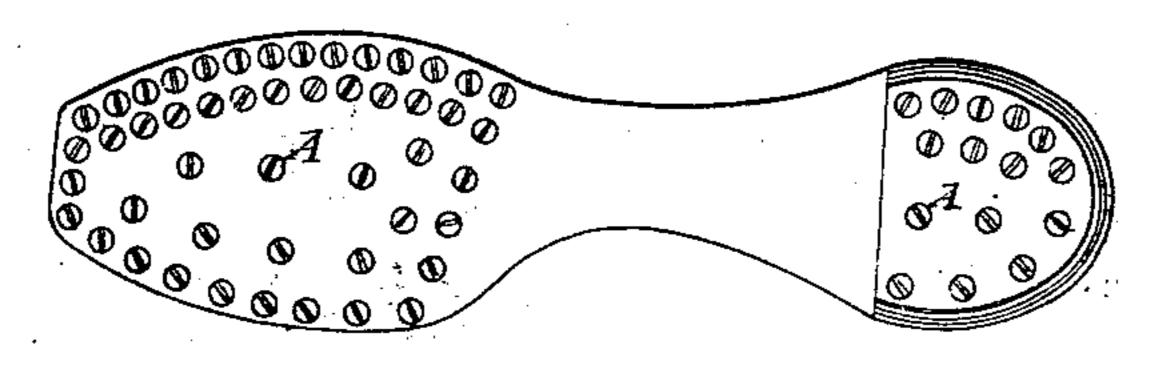
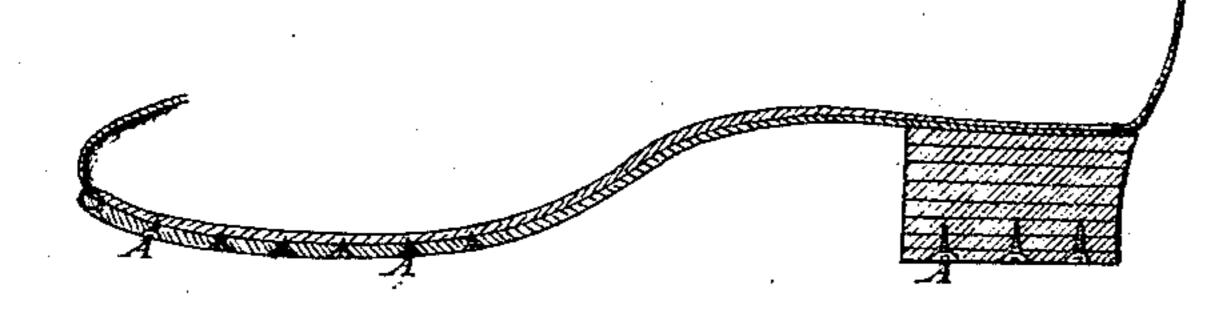


Fig. 2



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A.C. Mygath

THEFFITH STOR

## Anited States Patent Office.

## LEVI H. WHITNEY, OF WASHINGTON, DISTRICT OF COLUMBIA.

Letters Patent No. 103,950, dated June 7, 1870.

## IMPROVEMENT IN BOOTS AND SHOES.

The Schedule referred to in these Letters Patent and making part of the same.

I, LEVI H. WHITNEY, of Washington, in the District of Columbia, have invented a certain Improvement in Boots and Shoes, of which the following is a specification, reference being had to the annexed drawing making part of this specification, and in which—

Figure 1 is a bottom view of a boot or shoe embody-ing my improvement.

Figure 2 is a section thereof.

The same letters are used in both figures to designate identical parts.

This invention relates to the manufacture of boots and shoes; and

My improvement consists in arming the heels and soles thereof with hardened-steel screws, for the purpose of preventing their rapid wear, as will be more fully described hereinafter.

Various attempts have been made to arm the heels and soles of boots and shoes in such a manner that they might last without needing repair until the uppers were used up, but there was always some objectionable feature connected with such an armature.

Metallic plates, for instance, have been attached to them, which were objectionable on account of their cost, and, more particularly, because they deprived the boot or shoe of its elasticity, which is so desirable.

Again, nails have been used, which, in order to

have them take a good hold, had to be driven in so far that, as the heads wore off, they would be pushed entirely through the soles, and injure the feet of the wearer of the boot or shoe.

I have endeavored to overcome all objections to such an armature by using for that purpose short gimlet-pointed screws, A, made of steel and hardened to any desirable degree.

They are applied substantially in the manner shown in the drawing, by countersinking their heads in the soles, so as to make them flush with the under surface thereof.

Their length depends upon the thickness of the soles; beyond the outer one they should not pass ordinarily.

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

A boot or shoe, the sole, or sole and heel of which are armed with hardened-steel screws, substantially in the manner and for the purpose set forth.

In testimony whereof I have signed my name to the above specification in the presence of two witnesses.

L. H. WHITNEY.

Witnesses:

EDM. F. BROWN, H. N. MYGATT.