I. H. Whitney,

Shoe Screw.

No. 107.143. Patented Sep. 6.1870.

Fig. 3.

Mitnesses MR Langhlin Edm. F. Brown.

## United States Patent Office.

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

Letters Patent No. 107,143, dated September 6, 1870.

## IMPROVED SCREW FOR SOLES AND HEELS OF SHOES

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

To all whom it may concern:

Be it known that I, LEVI H. WHITNEY, of Washington, in the District of Columbia, have invented an Improved Armor-Screw for Shoe-Soles and Heels; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing making part of this specification, in which—

Figure 1 represents an elevation of a gimlet-pointed

screw, with a cylindrical head.

Figure 2 is a similar view of a screw, with a partly

cylindrical and partly tapering head.

Figure 3 is a like view of a screw with the ordinary

tapering head.

This invention consists in producing, as a new article of manufacture, a hardened gimlet-pointed metallic screw, which I term an "armor-screw," and which is to be used for arming shoe-soles and heels to prevent rapid wear of the same.

In general construction, this armor-screw is similar to the ordinary gimlet-pointed wood-screw, the distinction between the two consisting mainly in the process of manufacturing them, and in most cases also

in the material made use of.

My armor-screw, after it has been finished in the usual manner, is subjected to a hardening process, to

qualify it for resisting the wear to which it will be exposed when applied as above stated, and is generally made of steel, though it may be made of iron and afterward case-hardened.

The preferable form of head for this armor-screw is shown in fig. 1, presenting a surface of uniform area until it is entirely worn off; but other forms of heads, such as shown in figs. 2 and 3, though not quite as desirable will answer very well.

desirable, will answer very well.

The length of its shank will be determined by the thickness of the sole to which it is to be applied, values and the shank will be determined by the thickness of the sole to which it is to be applied, values and the shank will be applied.

rious sizes being made to that end.

Having thus described my invention, What I claim, and desire to secure by Letters Pat-

As a new article of manufacture, the within-described hardened steel armor-screw, for shoe-soles and heels.

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

L. H. WHITNEY.

Witnesses:

W. R. LAUGHLIN, EDM. F. BROWN.