

# United States Patent Office.

EUGENE IBOS, OF PARIS, FRANCE.

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## IMPROVEMENT IN THE MANUFACTURE OF BOOT AND SHOE-SOLES.

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

I, EUGENE IBOS, of Paris, in the Empire of France, have invented certain Improvements in the manufacture of boot and shoe-soles, of which the following is a specification.

This invention relates to a new mode of manufacturing wooden soles for boots and shoes of all kinds; and consists in the employment of waste veneer or thin sheets of wood, which are cut by any suitable apparatus by aid of iron lasts of various dimensions, giving the form of the soles. The heels are similarly made, and of the same material.

The following is the *modus operandi*:

I take two or more of the thin sheets of wood previously cut in the form of a sole, and place them on the last; consequently they form the inside of the sole or part nearest the foot. These are covered in the usual manner with a piece of cloth, wool, or leather. These layers of wood are then coated with tar, gutta-percha, or other similar substance, in a liquid state, to prevent the humidity of the external or outer sole, which is of leather, from reaching the foot. This latter sole is attached to the upper leather in the ordi-

nary manner, by means of screws, nails, or sewing, and gives solidity to the whole.

The advantages of this system over the wooden soles is that it has all the qualities of a wooden sole without its inconvenience; as it is as supple and light as a leather sole, and is equally elastic.

The sheets of wood being next the foot absorb the perspiration, and damp cannot penetrate to the foot, which is kept as dry as with a wooden sole.

This advantages over the leather sole is that, while having the same qualities of elasticity and lightness, it possesses the faculty of resisting humidity, and is cheaper than a sole wholly made of leather.

I claim—

The mode herein described of making soles of thin sheets of wood, coated with gutta-percha and protected by an outer sole of leather, in the manner and for the purposes herein set forth.

EUGENE IBOS.

Witnesses:

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