

CLEMENT S. FOSTER & OLIVER SAYLOR.

Improvement in Rubber Boots.

No 118,444.

Patented Aug. 29, 1871.

FIG. 1.

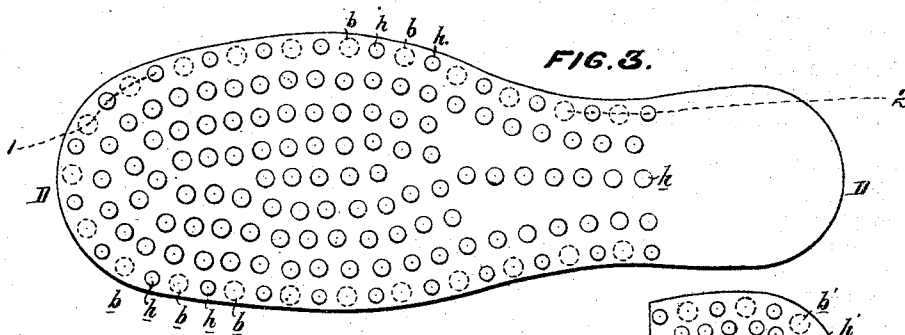
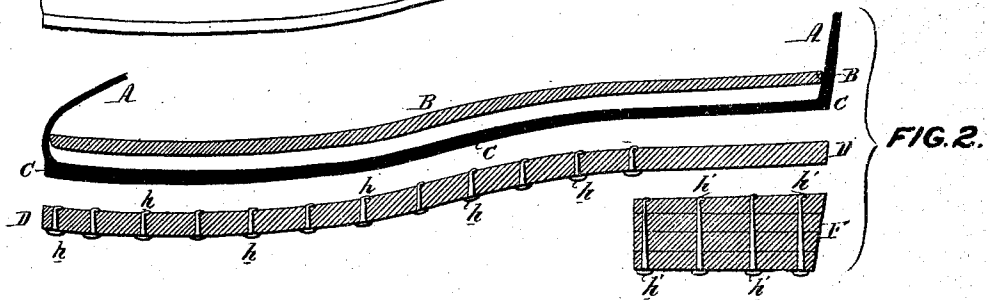
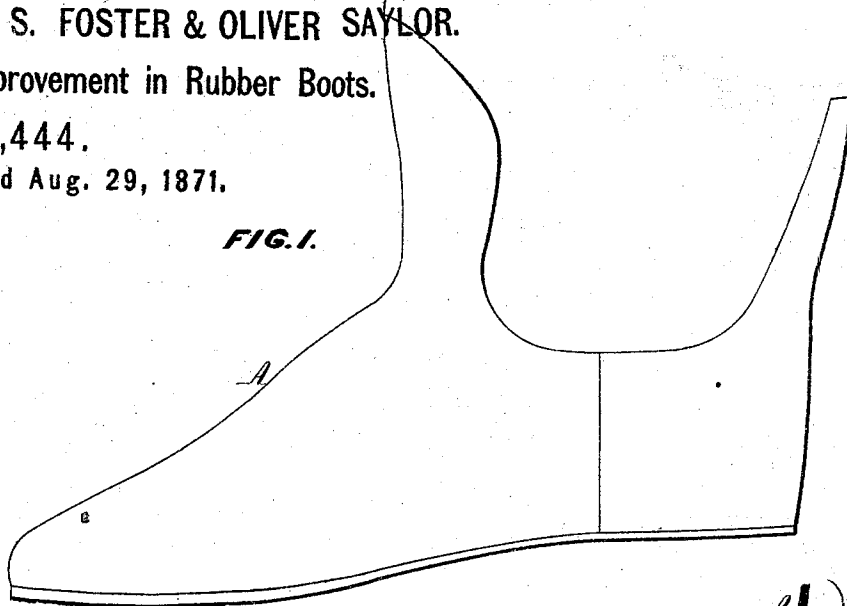
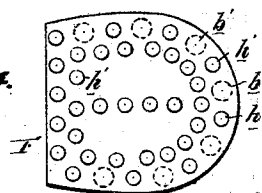


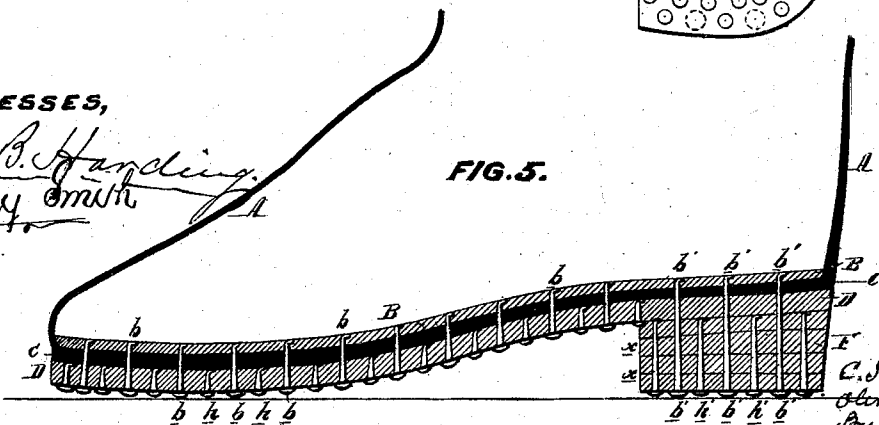
FIG. 4.



WITNESSES,

Mr. B. Harding
Harry Smith

FIG. 5.



C. S. Foster
Oliver Saylor
By their attys
Horsman & Co.

UNITED STATES PATENT OFFICE.

CLEMENT S. FOSTER, OF ASHLAND, AND OLIVER SAYLOR, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO THEMSELVES, WALTER F. SHULTZ, AND T. C. ELSE, OF SAME PLACE.

IMPROVEMENT IN RUBBER BOOTS.

Specification forming part of Letters Patent No. 118,444, dated August 29, 1871.

To all whom it may concern:

Be it known that we, CLEMENT S. FOSTER, of Ashland, Schuylkill county, and OLIVER SAYLOR, of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented certain Improvements in Gum Boots, of which the following is a specification:

Our invention consists of certain improvements—too fully explained hereafter to need preliminary explanation—in gum boots, the improvements being such that the advantages of both a leather and gum boot, as regards durability and water-proof qualities, are combined.

Figure 1 is an exterior view of an ordinary gum boot complete with the exception of the heel; Fig. 2, a sectional view of the said gum boot and of a leather insole, outsole, and heel arranged to be secured to the same in accordance with our invention; Figs. 3 and 4, face views of the leather outsole and heel studded with nails; and Fig. 5, a sectional view of the finished boot on the line 1 2, Fig. 3.

The ordinary gum boot with gum sole and heel soon becomes worn out or cut through when used upon rough or stony ground. This is especially the case in the mining regions, where the sulphur and other mineral waters so soften the sole as to render it extremely liable to be cut through by sharp stones, &c. Leather outsoles have occasionally been sewed to the soles of gum boots for the purpose of protecting the latter, but this plan has not been generally adopted, for the reason that the leather sole is easily detached from the boot by tearing out of the stitches.

To overcome the objection of the ordinary gum boot by enabling a durable leather sole and heel to be permanently and securely attached to the same, so that the advantages of both a leather and gum boot, as regards durability and water-proof qualities, may be combined, has been the object of our invention, which we will now proceed to describe.

The gum boot A, to which our improvements are to be applied, is made in the usual manner, and is complete with the exception of the heel. Into this boot is introduced an insole, B, of sole or other leather, of a proper size to fit upon the gum sole C, and to the outer edge of the latter

is fitted a thick outsole, D, of sole-leather. To secure the latter and the insole together and to the gum sole *a*, the boot is placed upon an iron last and inverted, and nails *b*, Figs. 3 and 5, are then driven through the three soles D, C, and B, and clinched or riveted upon the inside of the latter or insole by pounding upon their heads, so as to turn in or flatten the points against the iron last. The heel is in like manner secured by long nails *b'*, which are driven entirely through the said heel, and through the three soles D, C, and B, and clinched or riveted on the insole, as plainly shown in Fig. 5. By this method of fastening, the outsole and heel are readily and securely attached to the boot, the gum sole being, as it were, clamped between the leather outsole and insole, and the latter bearing the whole strain of the fastening-nails or rivets *b* and *b'*, so that the said nails can have no tendency to cut or tear the gum sole, while the whole surface of the latter is cornered and protected from the effects of wear by the thick leather outsole D. The leather insole also, besides affording a hold for the fastening-nails, removes the sole of the wearer's foot from direct contact with the gum sole, and thus prevents, in a measure, that disagreeable and injurious softening and sweating of the feet resulting from the constant wearing of gum boots.

The soles and heels of heavy boots, especially those intended for the use of miners, are commonly thickly studded with nails *b*, in the manner shown in Figs. 3 and 4, for the purpose of preventing the rapid wearing away of the said soles, and of enabling the wearer to secure a firmer foothold on slippery or soft ground. These nails have heretofore been simply driven into the sole and heel after securing the same to the boot; but this plan is objectionable, inasmuch as the nails frequently become loose and draw or fall out.

We have effectually overcome this objection by studding the sole with the nails *b*, and clinching the latter on the inside of the sole, in the manner shown in Fig. 2, before securing the said sole to the boot. The nails *b'* of the heel are also clinched in the same manner on the inside before securing the heel to the boot; but these nails serve also another purpose, namely, that of securing the several layers *x* of the heel together.

The fastening-nails or rivets *h* and *h'* of the outsole and heel may be driven through any portion of the same; but it will be found sufficient in most cases to merely arrange them around the edges, as shown in Figs. 3 and 4, spaces being left between the nails *h* and *h'* for the said fastening-nails or rivets.

We claim—

1. The within-described method of fastening a leather outsole to the sole of a gum boot, by means of nails driven through the said sole and boot, and through an insole, B, and clinched or riveted upon the inside of the latter, substantially as herein described.

2. The within-described method of fastening a leather heel to a gum boot by means of nails passed through the said heel, through the soles

D, C, and B, and clinched or riveted upon the insole, substantially as herein described.

3. A gum-boot, having a leather outsole studded with clinched nails, as described, and secured to the boot at the edge of the sole by nails *h* driven through and clinched.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

CLEMENT S. FOSTER.

OLIVER SAYLOR.

Witnesses to the signature of C. S. FOSTER:

WM. LEVY,

HAMILTON JOHNSTON.

Witnesses to the signature of O. SAYLOR:

JAS. A. WENDELL,

WM. A. STEEL.