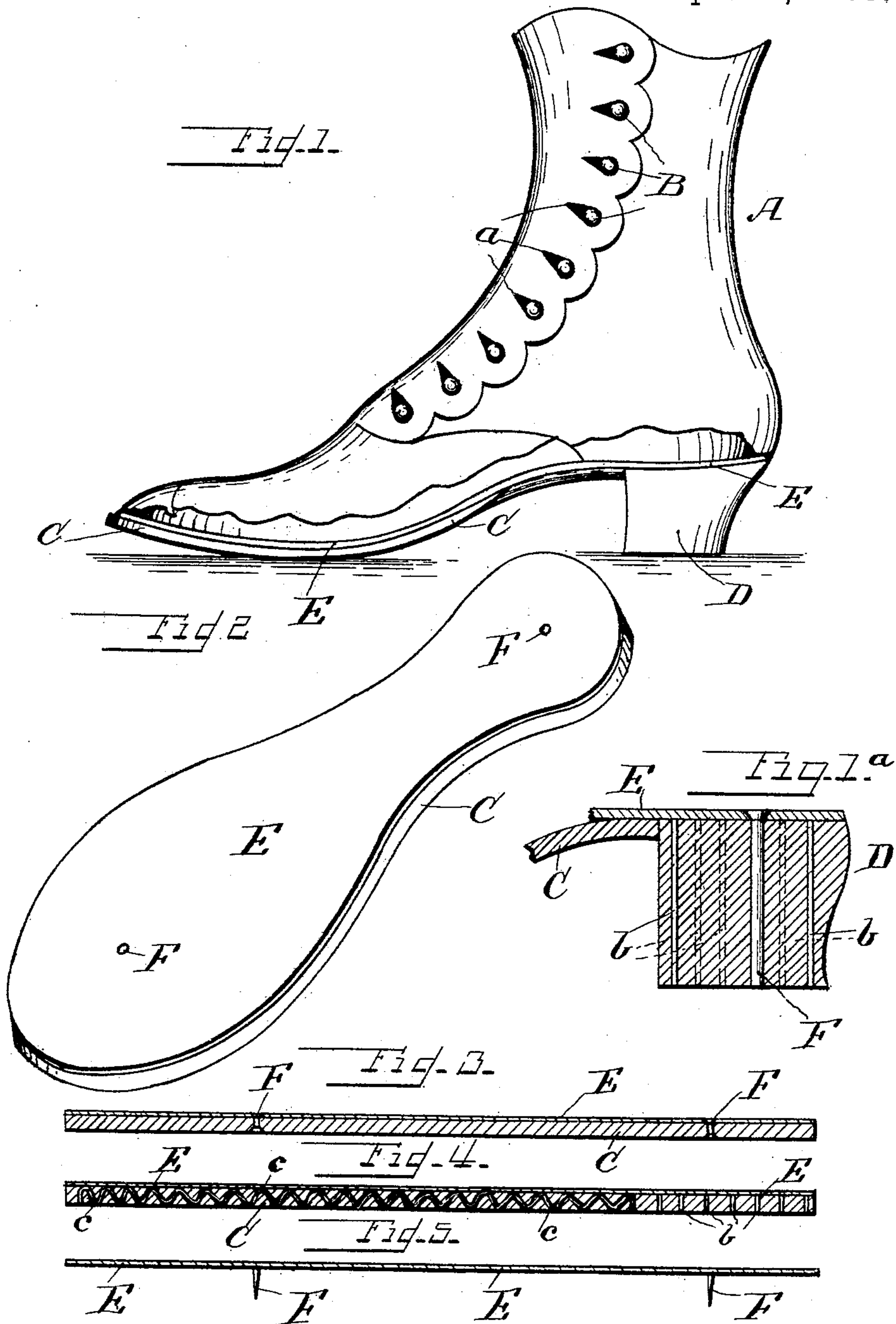


(No Model.)

R. F. CARNES.
ELECTRIC SHOE SOLE.

No. 495,782.

Patented Apr. 18, 1893.



WITNESSES:

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UNITED STATES PATENT OFFICE.

RUFUS F. CARNES, OF WINFIELD, ALABAMA.

ELECTRIC SHOE-SOLE.

SPECIFICATION forming part of Letters Patent No. 495,782, dated April 18, 1893.

Application filed December 22, 1892. Serial No. 456,063. (No model.)

To all whom it may concern:

Be it known that I, RUFUS F. CARNES, a citizen of the United States, residing at Winfield, in the county of Marion and State of Alabama, have invented certain new and useful Improvements in Electric Shoe-Soles, of which the following is a specification.

This invention relates to an electric conductor for boots and shoes, and its novelty will be fully understood from the following description and claim when taken in connection with the annexed drawings; and the object of the invention is to provide means for connecting the natural human currents of electricity with the earth through the soles of the feet.

A further object of the invention is to provide boots and shoes with a metallic electrical conducting sole, and means for attaching it to the soles of boots and shoes, so that said conducting sole will always be in direct communication with the earth.

A still further object of the invention is to construct a boot or shoe sole so that the joining parts of said sole, such as the wire stitching or wire pegs will form conductors of electricity from the human body through the metallic sole to the earth.

To accomplish this result, the invention consists in placing a metallic sole upon the inside of a boot or shoe, and connecting said sole with the earth by means of a wire stitching or a series of metallic pegs, which run through an ordinary leather boot or shoe sole.

In the accompanying drawings forming part of this specification, Figure 1 is a side elevation of a shoe, embodying my invention. Fig. 1^a is an enlarged section of a heel showing an electric conductor, with the electric conducting pegs. Fig. 2 is a perspective view of an ordinary shoe sole with my electric inside sole attached thereto. Fig. 3 is a longitudinal sectional view showing means of attaching the electric sole to the leather sole. Fig. 4 is a similar sectional view showing the copper wire or pegs, and Fig. 5 is a longitudinal sectional view of a modified form of connecting the metallic sole with its conductors.

The same reference letters denote the same parts throughout the several figures of the drawings.

The shoe A, may be of any construction,

but for the purpose of illustration is shown with the buttons B, button holes *a*, and the ordinary leather sole C. This leather sole C, has copper pegs *b*, or wire *c*, for uniting said sole, which extends clear through the sole, as well as the heel D, of the shoe, and the said pegs or wire come in contact with the earth upon the outside and with the metallic copper sole E, upon the inside of the shoe.

The metallic or electric sole E is secured to the inside of the leather sole C, by means of one or more conductors F, which causes the said metallic sole E which I prefer to make of sheet copper, to come in direct contact with the copper pegs or stitching. These conductors extend from the outside of the leather sole clear through the copper sole where they are riveted or clinched.

In the modification shown in Fig. 5, I have made the copper sole and conductors in one piece, that is the conductors are secured to the copper sole ready to be driven into the leather sole of a boot or shoe. These copper soles may be readily manufactured by the dozen or gross, by simply stamping them out of the metal to suit different sizes of boots and shoes.

I do not wish to be understood as limiting myself to any particular metal for the conducting sole, or to any particular means of securing the said sole to a boot or shoe, but reserve to myself the right to change the metal and means of securing it in place without departing from the spirit of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination with a shoe, of the inside electric conducting sole, the electric conducting points formed upon the bottom of the said sole, and the electric wire stitching forming additional conducting points in contact with the inside, substantially as shown and described.

In witness whereof I hereunto set my hand in the presence of two witnesses.

RUFUS F. CARNES.

Witnesses:

W. R. H. LODEN,
J. M. WHITEHEAD.