No. 740,548. PATENTED OCT. 6, 1903.

J. W. GIBBS.

ELECTRIC SHOE.

APPLICATION FILED JULY 16, 1903.

NO MODEL.

Fig. 1.

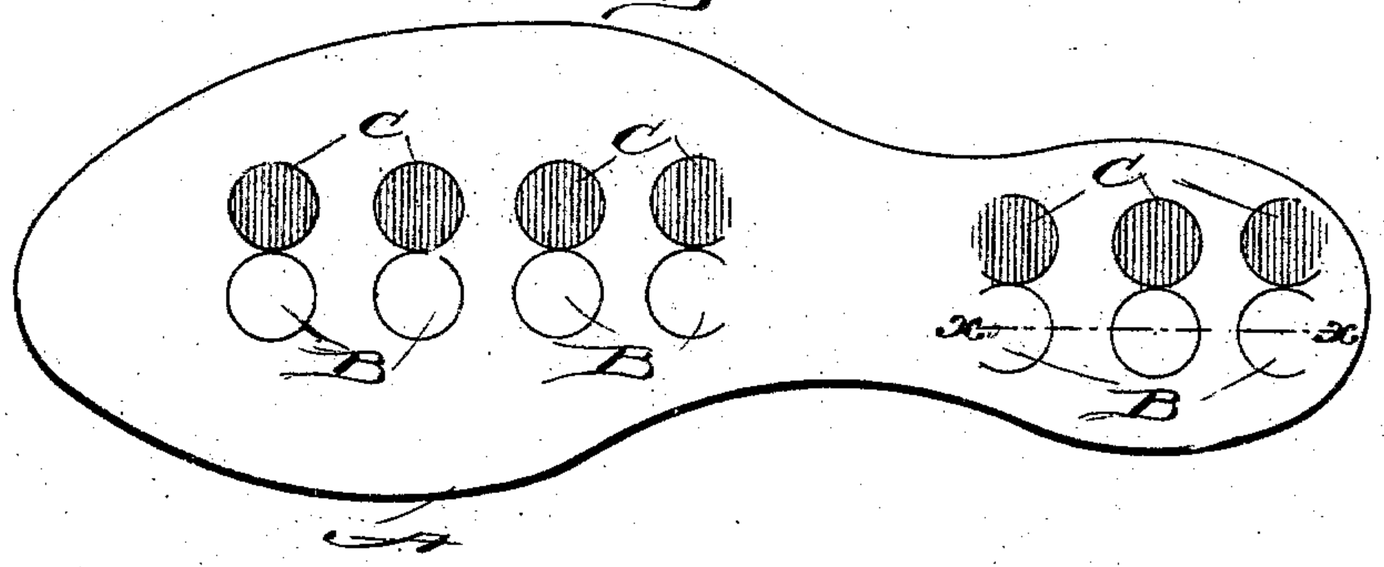


Fig. 2.

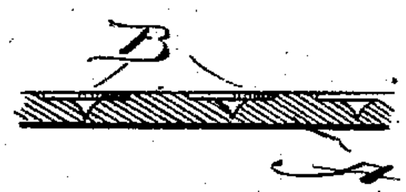


Fig. 3.

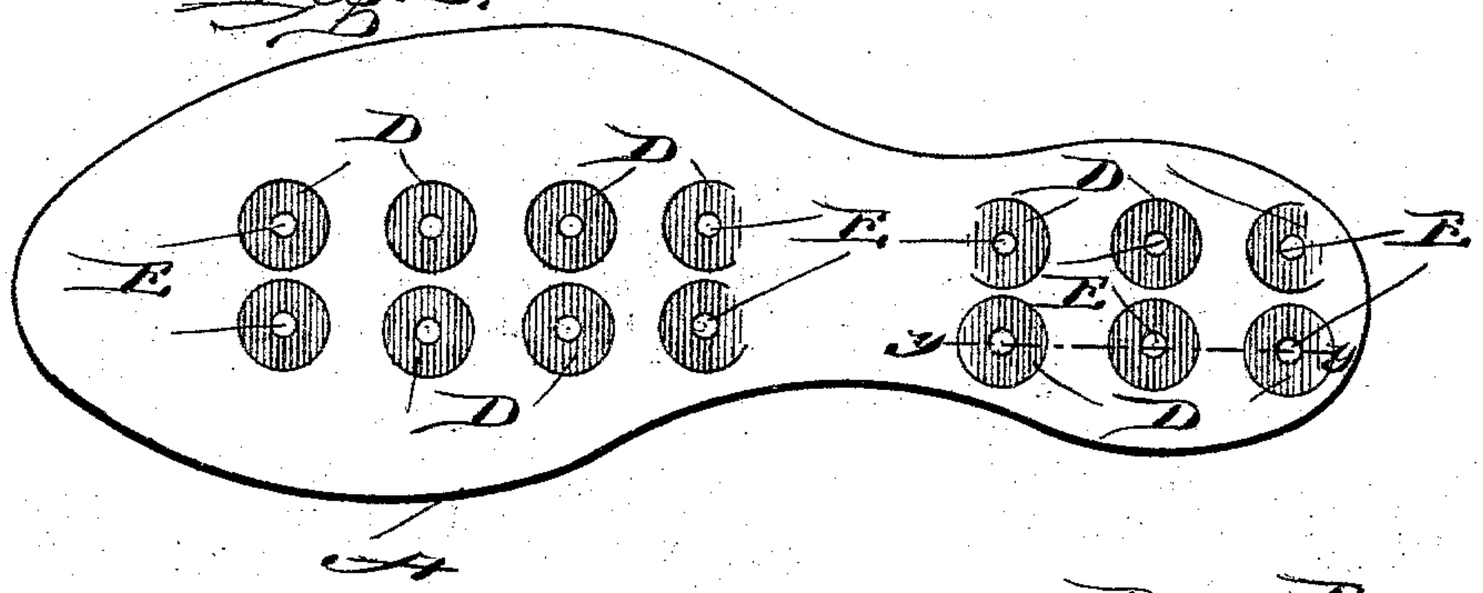
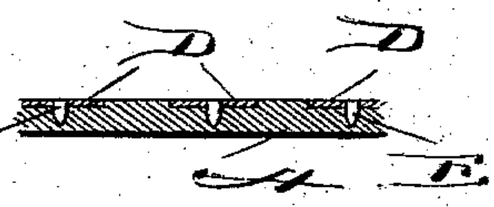


Fig. 4.



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No. 740,548. Patented October 6, 1903.

UNITED STATES PATENT OFFICE.

JOHN WILSON GIBBS, OF NEW YORK, N. Y.

ELECTRIC SHOE.

SPECIFICATION forming part of Letters Patent No. 740,548, dated October 6, 1903.

Application filed July 16, 1903. Serial No. 165,724. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILSON GIBBS, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Electric Shoes, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an electric shoe; and its object is to provide, in connection with the sole of a shoe or other article of footwear, a means permanently attached thereto, such that an electric current will be generated under the influence of the foot of the wearer.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts, which will be hereinafter fully set forth and the novel features thereof pointed out in the claims.

In the accompanying drawings, Figure 1 shows a view of the upper surface of the sole of a shoe in outline with my invention applied thereto. Fig. 2 is a section on line *x x* of Fig. 1. Fig. 3 is a view similar to Fig. 1, showing a modification in the manner of applying the electric elements; and Fig. 4 is a section on line *y y* thereof.

Similar reference characters refer to similar parts throughout the several views.

The sole of the shoe is shown at A, and in the upper surface thereof there are driven or otherwise inset a series of nails or studs B, with each of which there is associated a similar nail or stud C. The studs of the series B are preferably of zinc and those of the series C preferably of copper, thereby providing pairs of elements of dissimilar metals or opposite in sign such that when contacted with by the foot of the wearer from the influence of the warmth or moisture of the person or for other reasons an electric current will be generated, passing from one element to the other through the body of the wearer. The medical and therapeutic effects of such a current are well known, and I claim herein only the specific construction of the means for obtaining such a current. Obviously the upper surface of the sole with which the foot of the wearer is to contact must be made as smooth as possible, and while this can be done by making the heads of the studs very thin and smooth without countersinking such heads I prefer the construction shown in Fig. 2, wherein such heads are inset or countersunk, so that the upper surfaces thereof are flush with the surface of the sole.

Contact between the body and opposing electric elements might also be provided, as shown in Fig. 3, by placing disks, as D, of suitable material, preferably copper, on the upper surface of the sole, countersinking them into the sole, if desired, and fastening or pinning them to the sole by means of pins E, formed of an opposing electric element, as zinc.

It will thus be apparent that this invention provides a construction whereby opposing electric elements may be easily and readily attached to the inner surface of the sole in such manner as to become a permanent part thereof, thereby avoiding displacement or shifting of the elements. The advantages of such construction in economy of manufacture, simplicity, and comfort to the wearer will be readily understood.

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

1. In an article of footwear, in combination with the sole, members countersunk in the upper surface of said sole, said members providing contacting electric elements of opposite sign such that an electric current will be generated therebetween when engaged by the foot of the wearer.

2. In an article of footwear, in combination with the sole, a pair of studs driven into the upper surface of the sole, said studs having contacting heads or surfaces formed of opposite electric elements, as copper and zinc, and adapted to be contacted with by the foot of the wearer.

3. In an article of footwear, in combination with the sole, a pair of studs or insets having the heads thereof countersunk into the upper surface of the sole, and providing contacting electric elements of opposite sign such that an electric current will be generated therebetween under the influence of the foot of the wearer.

4. In an article of footwear, in combination

with the sole, a plurality of pairs of studs driven into the upper surface of said sole, the heads of each pair of said studs providing contacting electric elements of opposite sign such that an electric current will be generated therebetween under the influence of the foot of the wearer.

In testimony whereof I affix my signature in the presence of witnesses.

JOHN WILSON GIBBS.

Witnesses:
ROBERT E. STACK,
B. C. LEVY.