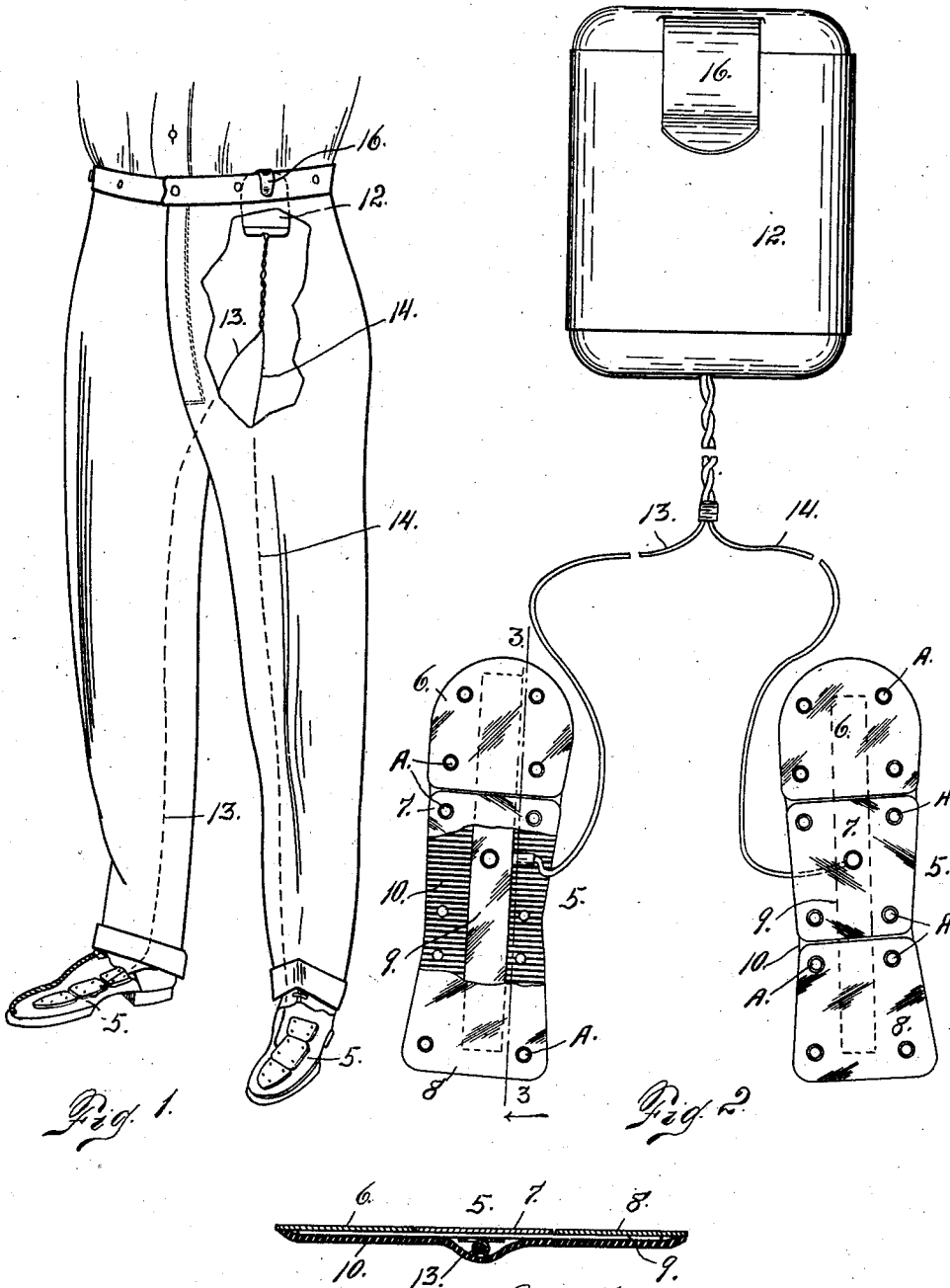


C. W. WEST.
ELECTRIC INSOLE.
APPLICATION FILED MAR. 23, 1908.

974,220.

Patented Nov. 1, 1910.



Witnesses
Otto E. Haddick.
Dena Nelson.

Inventor
Charles W. West.
By *A. J. Brien*
Attorney

UNITED STATES PATENT OFFICE.

CHARLES W. WEST, OF DENVER, COLORADO, ASSIGNOR TO THE ELECTRO-CURO COMPANY, OF DENVER, COLORADO.

ELECTRIC INSOLE.

974,220.

Specification of Letters Patent.

Patented Nov. 1, 1910.

Application filed March 23, 1908. Serial No. 422,846.

To all whom it may concern:

Be it known that I, CHARLES W. WEST, a citizen of the United States, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Electric Insoles; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to electric insoles adapted to be placed in contact with the soles of the feet, the respective insoles being connected with the opposite poles of a portable battery carried by the wearer. Insulated conductors lead from the opposite poles of the battery to the respective insoles, the current being completed from one insole to the other through the body of the wearer. These insoles are composed of a number of metal members transversely divided to give them flexibility whereby they are adapted to conform to the various movements of the foot, without annoyance. The several metal members of each insole are connected by a strip of flexible material as canvas located at the bottom of the insole, while the metal members come in direct contact with the foot of the wearer. In order that the several members may be electrically connected, a narrow strip of metal as copper is employed to form the connection between the said members, the said strip extending longitudinally of the insole and between the metal members and the canvas member. The several members of each insole are connected by gromets thus forming openings for ventilating purposes.

The object of these insoles is to treat the wearer by passing a gentle current of electricity through the body from one foot to the other whereby important therapeutic results are obtained.

Having briefly outlined my improved construction I will proceed to describe the same in detail reference being made to the accompanying drawing in which is illustrated an embodiment thereof.

In this drawing, Figure 1 is a view illustrating my improved insoles in use and

showing one way of supporting the portable battery. Fig. 2 is a detail view of the apparatus shown on a much larger scale. Fig. 3 is a section taken on the line 3—3 Fig. 2.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate each of the two insoles which as shown in the drawing comprises three metal members 6, 7 and 8 connected by a longitudinally disposed flexible strip 9 of conducting material. The three plates of each insole are further connected by a strip 10 of canvas or other suitable flexible material which is placed on the lower side of the insole when the latter is in use, the longitudinally disposed strip 9 being interposed between the metal members and the insulating member, the latter being connected by gromets or hollow fastening devices A thus giving an opportunity for free circulation of the air through the insoles. The flexible strip 9 is connected to the central metal member 7 and the canvas 10 by means of a gromet A. The extremities of the strip 9 extend beyond the central member and loosely engage the members 6 and 8 between the canvas and the metal member, thereby causing a frictional contact with the members 6 and 8.

From the opposite poles of a portable battery 12, lead insulated conductors 13 and 14 which lead to the metal strips 9 of the respective insoles and are in electrical connection therewith through the gromet or fastening device A, with the result that the current passes from one pole of the battery through one of the conductors 13 or 14, to the metal plates of one insole and thence through the body of the wearer to the metal plates of the other insole and thence through the other conductor 13 or 14 to the other pole of the battery 12, thus subjecting the body of the wearer to the action of the electric current for therapeutic purposes as heretofore described.

The battery 12 is of such size that it may be readily carried by the patient, and as shown in the drawing is provided with a supporting hook 16 which may be applied to the waistband of the trousers. In this event the battery is placed inside the trousers adjacent the waistband, while the hook engages the upper edge of the latter and passes downwardly on the outside. It is

evident that this is a convenient way of supporting the battery, whereby the insulated conductors are kept stretched out or in their normal or extended position, without being
5 subjected to the danger of being broken as would be the case when the battery is so located that the wires are considerably bent. When the battery is supported in the manner shown in the drawing these conductors
10 may be cut off about the right length for each individual patient. This fact will add to the life of the conductors and prevent an interruption of the circuit due to breakage.

Having thus described my invention, what
15 I claim is:

1. The combination with a portable battery of a pair of insoles in electrical connection with said battery, each of the insoles composed of a number of metal members, a
20 strip of flexible conducting material centrally and rigidly connected with an intermediate metal member, the opposite extremities of the strip being in frictional contact with the metal members on either
25 side of the intermediate member, a strip of

flexible insulating material applied to the metal members, the strip of conducting material being interposed between the metal members and the insulating material, and conductors leading from the poles of the
30 battery to the metal members of the respective insoles.

2. The combination with a portable battery, of a pair of insoles in electrical connection with said battery, the insoles consisting of a plurality of metallic members, a
35 strip of flexible conducting material connected with an intermediate member and loosely engaging the members on the opposite sides of the intermediate member, and
40 conductors leading from the poles of the battery to the metallic members, substantially as described.

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

CHARLES W. WEST.

Witnesses:

DENA NELSON,

ALODIA HUTCHISON.