

(No Model.)

A. J. SHEFFIELD.
ELECTRIC BELT.

No. 420,740.

Patented Feb. 4, 1890.

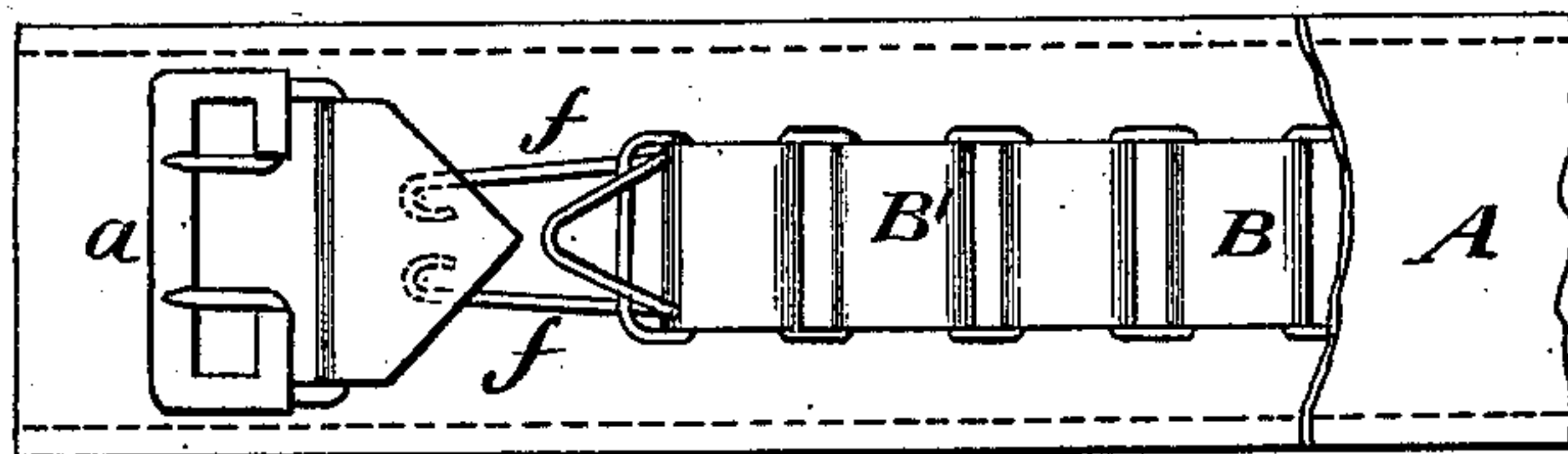
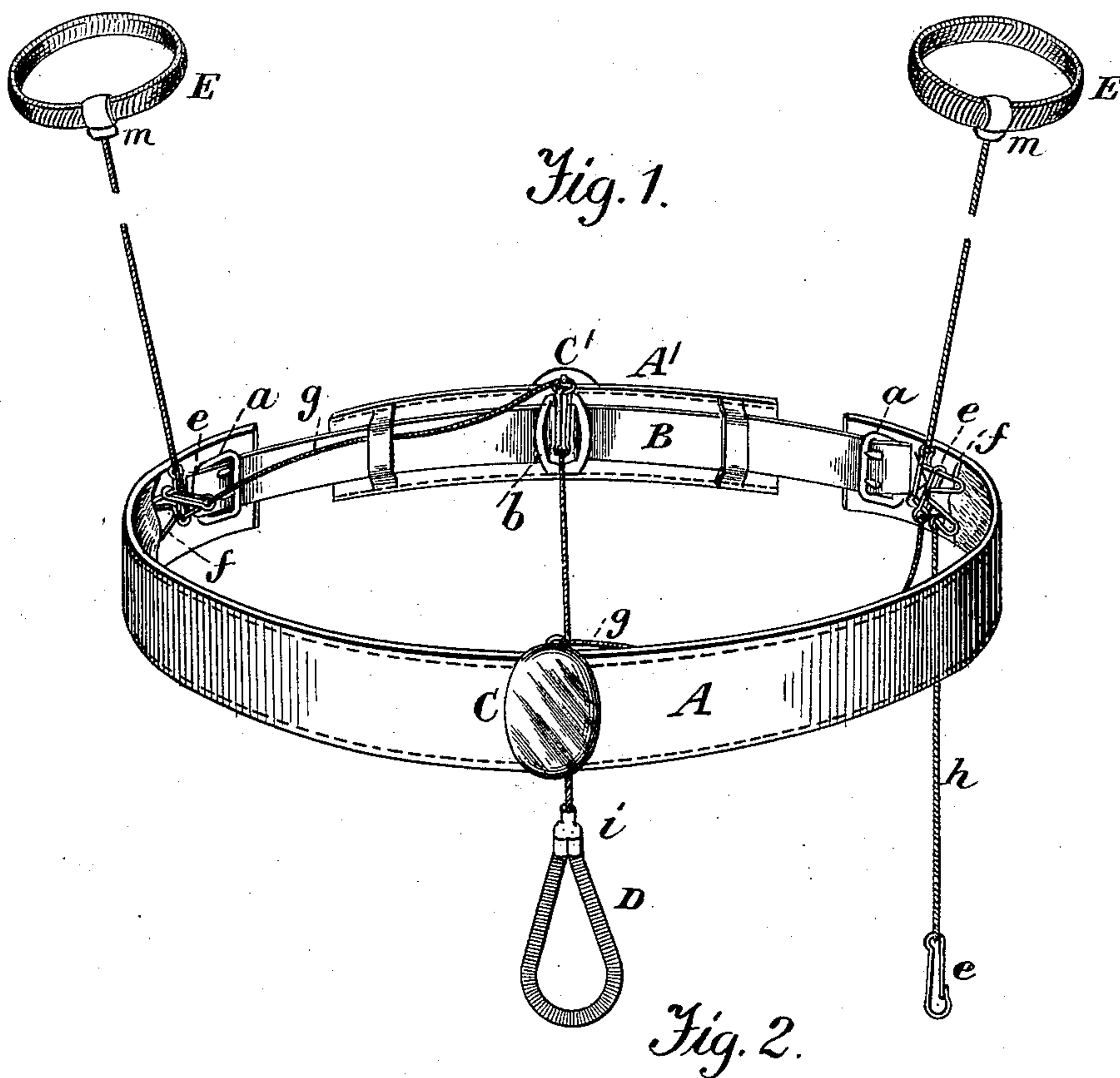
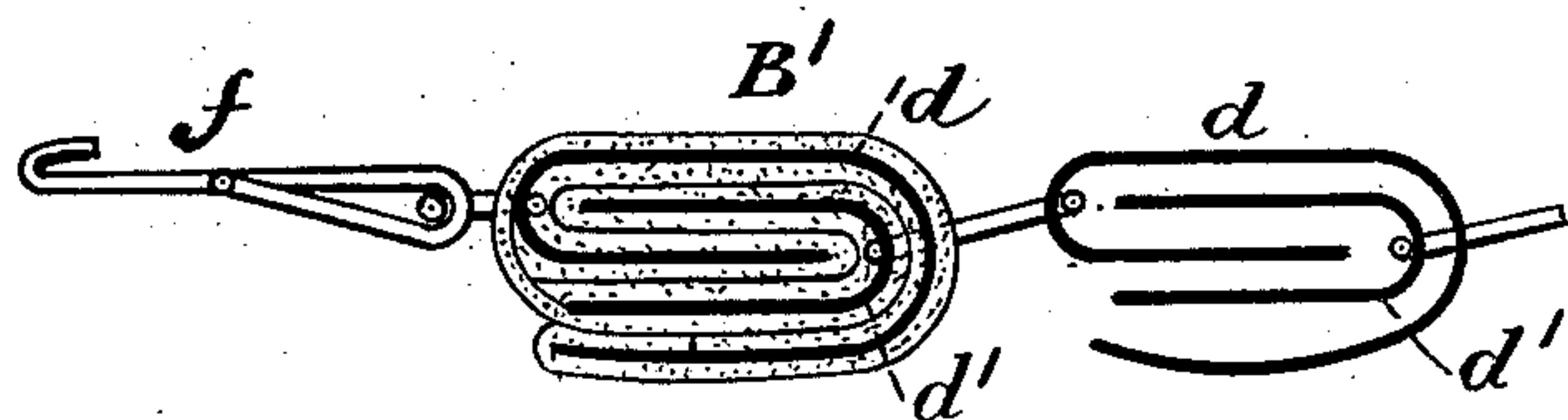


Fig. 3



Witnesses.
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UNITED STATES PATENT OFFICE.

ALBERT J. SHEFFIELD, OF GRIGGSVILLE, ILLINOIS.

ELECTRIC BELT.

SPECIFICATION forming part of Letters Patent No. 420,740, dated February 4, 1890.

Application filed July 24, 1889. Serial No. 318,543. (No model.)

To all whom it may concern:

Be it known that I, ALBERT J. SHEFFIELD, a citizen of the United States, residing at Griggsville, in the county of Pike and State of Illinois, have invented certain new and useful Improvements in Electric Belts; 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.

This invention belongs to that class of electric belts which are provided with cells which are linked together to form a voltaic battery; and it consists in certain improvements in the construction of the same, as hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents an electric belt provided with my improvements. Fig. 2 is a partial view of the inner side of the belt. Fig. 3 illustrates the cells of the battery and the securing-hooks.

A designates the main part of the belt, and A' indicates an extension, which is connected with the main part by means of a strap B, buckles *a*, and a slide *b*, which is secured to the inner side of the extension A', and is movable on the strap B.

The battery B' is formed of cells which are linked together, as shown. Each of the said cells is formed of two flat pieces of metal, one piece *d* being of zinc, and the other *d'* being of copper, and the two pieces are folded and placed together and provided with a covering of felt, or other suitable porous material, which is also folded to form layers between the metallic parts, as seen in Fig. 3. As will be seen, the metallic piece *d* is made longer than the piece *d'*, and is folded twice, so as to inclose the latter and clamp the parts more securely together. The battery with cells thus constructed is light and compact, and is not so liable to come to pieces from handling as those heretofore in use. The battery is secured at each end to the belt

A by a hook *f*, said hook being formed of wire which is bent to form a V-shaped point, which is turned down, so that the point of the hook is on the same plane with the parts of the wire which form the shank, as seen in Fig. 3.

The belt is provided with two major electrodes C and C', one of which is secured to the main belt A, the other electrode C' being secured to the extension A', which is adjustably connected with the strap B, so that the electrode C' is adjustable to or from the electrode C. Each of the said electrodes is connected with one of the hooks *f* at the ends of the battery, either by wire or a metallic cord *g*, which is provided with a hook *e*, by which it may be readily connected with or disconnected from either of the hooks *f*. The metallic connections may be shifted by unhooking each of them from one hook *f* and connecting it with the other hook *f*, and the electric current may thus be reversed without removing the belt from the person of the wearer. A metallic cord *h* is connected with one of the hooks *f*, and is provided with a hook *e* for connection with a link at any desired point in the battery for regulating the strength of the electric current.

D indicates a suspensory, which is formed of a loop of spiral wire, the two ends of which are secured in a clasp *i*, which is clamped to a metallic cord which is connected with one of the hooks *f*. Armlets E, and garters of spiral wire may also be connected by metallic cords with the hooks *f*, metal clamps *m* being employed to connect the cords with such armlets or garters.

I claim—

1. The combination, with the main part A of the belt provided with an electrode C, of an extension A', provided with an electrode C', the strap B, and slide *b*, by which the parts A A' are adjustably connected, a battery formed of cells, hooks *f* connected with the battery, and metallic cords connected with said hooks and with the electrodes, substantially as and for the purposes described.

2. The combination, with the belt, of a

battery formed of cells and links, substantially as shown, said battery being provided with hooks *f*, each of said hooks being constructed of wire which is bent to form a V-shaped point on the same plane with the parts which form the shank of the hook, substantially as shown and described.

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

ALBERT J. SHEFFIELD.

Witnesses:

W. W. KENNEY,
T. K. BALL.