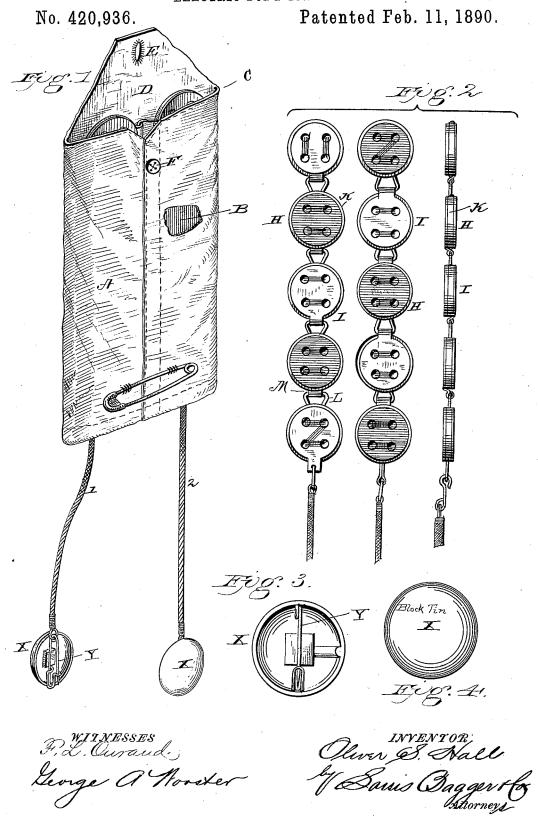
## O. S. HALL.

## ELECTRIC BODY BATTERY.



## UNITED STATES PATENT OFFICE.

OLIVER S. HALL, OF MARION, IOWA, ASSIGNOR OF ONE-HALF TO JAMES M. GRAY, OF SAME PLACE.

## ELECTRIC BODY-BATTERY.

SPECIFICATION forming part of Letters Patent No. 420,936, dated February 11, 1890.

Application filed June 26, 1889. Serial No. 315,644. (No model.)

To all whom it may concern:

Be it known that I, OLIVER S. HALL, a citizen of the United States, and a resident of Marion, in the county of Linn and State of 5 Iowa, have invented certain new and useful Improvements in Electric Body-Batteries; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to electric bodybatteries for the treatment of various forms of disease by the local application of an electric current to the affected part or parts; and it consists in the construction and novel combination of parts, as will be hereinafter fully

described and claimed.

In the accompanying drawings, forming part of this specification, in which like letters of reference indicate corresponding parts, Figure 1 is a view in perspective of an electric body-battery embodying the improvements of my invention. Fig. 2 is a view of the electric chain removed from the pocket in which it is usually worn, showing also the positive and negative flexible wrapped wires and the positive and negative buttons at the ends thereof; and Figs. 3 and 4 show reverse face views of the positive and negative buttons at the ends of their respective wires and the safety-pins for securing said buttons to the under-garment of the wearer.

Referring by letter to the accompanying drawings, A designates a centrally-longitudinal divided cloth or flannel pocket, which is lined with water-proof material B—such as rubber or oil-cloth—to prevent the charging-acid from coming in contact with the cloth-ing or person of the wearer, the battery and its covering being preferably worn in the hip-pocket of the male patient or in the bustle of the female patient, such location being preferable for the sake of convenience. The pocket A is open at both ends, the end C being provided with a flap D, having a button-hole E, which is designed to receive the closing-button F on one face of the pocket A.

The battery comprises a chain of connected 5° alternating copper and zinc disks H and I, having interposed felt disks K, united by

threads, the copper disks and zinc disks alternating, as shown—that is to say, the copper and zinc disks are alternately above and below. The completed disks are connected by 55 hinged links L, which engage eyes M on one side of each link. The battery in this instance is immersed or dipped in vinegar or diluted acid in order to energize it, and is then placed in its water-proof pocket. The 60 positive and negative wires 1 2 are provided at their attaching ends with concavo-convex buttons X, of block-tin, provided with safetypins Y for attaching them to the clothing of the wearer, so that the convex portions of 65 the buttons may come in contact with that portion of the person of the wearer to be treated for disease.

Having thus fully described my invention, what I claim as new, and desire to secure by 70

Letters Patent, is-

1. A cover for body-batteries, composed of flannel or like material formed into a rectangular shape, having a central longitudinal seam dividing it into two open-ended compartments, and also provided at its upper end with a flap having a suitable button-hole for engaging a button on the face of the cover, substantially as set forth.

2. A cover composed of fiannel or like material formed into a rectangular shape, having a central longitudinal seam dividing it into two open-ended compartments, said cover being lined with water-proof material, and also provided at its upper end with a flap having a suitable button-hole for engaging a button on the face of the cover, in combination with a galvanic belt consisting of a chain of alternating copper and zinc disks, having interposed felt disks, suitably connected by 90 means of eyes and links, positive and negative wires connected to the ends of said chain, and electrodes secured to said positive and negative wires, substantially as set forth.

In testimony that I claim the foregoing as 95 my own I have hereunto affixed my signature in presence of two witnesses.

OLIVER S. HALL.

Witnesses:

J. L. PATTERSON, B. P. WICKHAM.