

C. N. WEST.
Electro-Therapeutical Belt.

No. 221,485.

Patented Nov. 11, 1879.

Fig. 1.

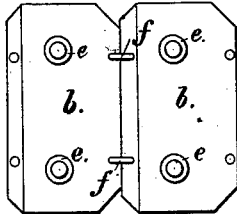


Fig. 2.

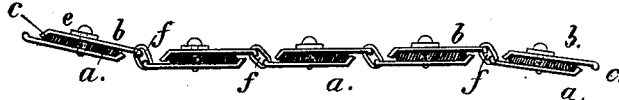


Fig. 4.

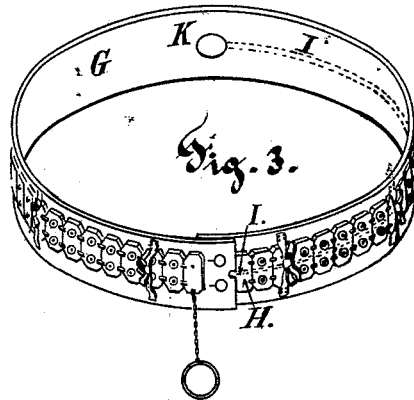
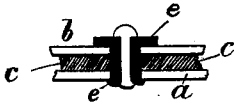


Fig. 5.

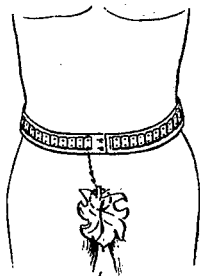


Fig. 6.

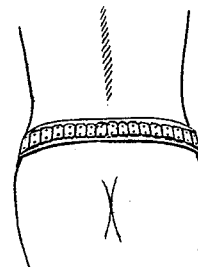


Fig. 7.

Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES N. WEST, OF SAN JUAN SOUTH, CALIFORNIA.

IMPROVEMENT IN ELECTRO-THERAPEUTICAL BELTS.

Specification forming part of Letters Patent No. **221,485**, dated November 11, 1879; application filed June 16, 1879.

To all whom it may concern:

Be it known that I, CHARLES N. WEST, of San Juan South, San Benito county, in the State of California, have invented an Improved Electrical Belt for Therapeutic Purposes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to certain drawings accompanying this specification, and forming a part of the same.

My invention relates to what I call a "voltaic-electric belt," to be used for therapeutic purposes.

My improved electric belt is to be worn upon the persons of individuals, and its object is to vitalize or restore a normal action in debilitated or diseased organs of the human system by electric action.

My belt may be characterized as a simple voltaic pile extended longitudinally, the elements of which form the links of the belt, and which are so combined and arranged that an electric circuit is established around the body of the person and to the debilitated organs.

The following specification describes the method of constructing the elements and combining them together so as to form an electric belt; also, the manner of arranging the conducting-wires which lead the current in contact with special organs.

Referring to the accompanying drawings, Figure 1 is a detached view of two elements of my improved electric belt. Fig. 2 is a longitudinal section of several elements. Fig. 3 is a perspective of the belt. Fig. 4 is a detached view of riveting device. Fig. 5 is a detached view of the connecting-chains; and Figs. 6 and 7 show the electric belt in use.

Each element consists of a flat plate, *a*, of copper or other negative metal, which may be of any suitable size and shape, and a zinc or other positive metal plate, *b*, of corresponding size and shape. These plates are placed together with a layer of felt, *c*, or other absorbent material of any suitable thickness between them, and they are then riveted or otherwise secured together, care being taken to insulate the two plates, or rather to avoid any metallic contact between them.

In the present instance I have represented the negative or copper plate *a* with its bordering-edges turned up, so that the plate will

form, in connection with its corresponding zinc or positive plate *b*, a cup or pan, in which the absorbent material is placed. This arrangement, by confining the absorbent material, serves to retain the exciting moisture a greater length of time. The edges of the zinc or positive plate could also be bent in the same manner, if desired; but usually it will be sufficient to bend the edges of one plate only. These turned-up edges might be dispensed with; but I prefer to use them, as they not only serve to better retain the moisture, but also make the belt more sightly. The edges, however, must not be bent far enough upward to touch the positive or opposite plate.

For fastening the plates together I can use a rivet or screw made of a non-conducting material, or I can use metallic screws or rivets by surrounding them with a suitable insulator to prevent metallic contact between the two plates and to avoid contact with the exciting liquid or substance.

If I use a metallic screw or rivet I also use an insulator, *e*, (shown at Fig. 4,) which can be made of gutta-percha or india-rubber, and which surrounds or incloses the rivet or screw, so that I not only avoid metallic contact of the plates, but also insulate the rivet or screw from the exciting liquid or substance. The insulator herewith represented is a short india-rubber tube or cylinder with a large flat burr or head on one end. The metallic rivet passes through the cylinder or tube, the flat head serving to keep the head of the rivet away from the metal.

Thus completed this element, when immersed in an acid or saline solution, is a full and complete galvanic battery, which will generate electricity as long as the absorbent filling material retains moisture, and when a number of similarly-constructed elements are connected together by suitable conducting and connecting links an extended voltaic pile or galvanic battery or belt is made, the intensity of whose action is proportioned to the number of elements linked together.

In order to adapt these elements to be connected by links, I overlap the plates on each side, so that the copper or negative plate will project on one side and the zinc or positive plate on the opposite side, as represented. I then connect the projecting edge of the cop-

per plate of each element with the zinc plate of the element next to it by means of copper or other suitable conducting-links *f*, thus forming a connected series of elements or voltaic piles, the whole forming a belt that will generate an electric current and circuit when the poles or ends are brought together.

In order to render the electric belt more comfortable to wear, I place a cloth belt or lining, *G*, inside of it, or, in other words, I secure the electric belt upon a cloth belt, so that the cloth belt will be worn next to the skin of the wearer. This cloth belt or lining also renders the belt more cleanly, as it can be detached when required and the cloth belt washed, or the soiled one replaced by a fresh one, thus preventing the belt from becoming filthy with perspiration from the human body.

To this cloth belt, at the negative end of the electric belt, I attach a metal plate, *H*, with which the negative end of the belt will come in contact when the belt is strapped upon the person of the wearer. To this metal plate I attach one end of an insulated wire, *I*, which passes inside of the cloth belt or lining around to the middle of the belt, where its opposite end is attached to a metal disk or plate, *K*. This metal disk or plate is so applied and adjusted that it will touch the spinal column of the wearer in the "small of the back," or at the "lumbar" and "sacral plexis." The electric current will then pass along the nerves to the sexual organs, for which and the surrounding parts I employ peculiarly - constructed wires or chains (shown at Figs. 6 and 7) for bringing the current in contact with the organs or parts. Thence I lead the current to the positive end of the belt by means of the wires or conductors which connect the appliances for the organs with the belt, thus completing the circuit.

This belt is especially intended for treating the sexual organs by the electric current, and I claim that my method of treatment is entirely new—that is, the conduction of the galvanic current along the nerves from the spinal

cord to the sexual organs, and thence, after distributing the electricity all through the organs through suitable receivers and conductors, back to the belt again.

I claim that this belt embodies all the incidental advantages of the absorption of electricity by the nerves, together with the special direction and entrance of the galvanic current into the body. Therefore, while my belt can be applied to any and all parts of the body, yet I claim a specialty of its design and use to direct an electric current to the sexual organs, for by so doing I claim that it will cure not only sexual ailments in both sexes, but also that it will cure all functional diseases, or diseases arising from nervous or functional derangement. I claim that this belt, constructed as claimed and described above, has been tested and found to be capable, with twenty-nine elements of a fraction less than five-eighths of an inch of metallic surface, after it had been immersed in a solution of vinegar and water, and then taken out and placed upon the person, of cauterizing the human flesh, thus constituting it an instrument valuable to the surgeon.

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

The electric belt consisting of a series of connected elements, each element comprising a negative and a positive plate, *a* and *b*, with an interposed absorbent, *c*, and links *f f*, the plate *a* being provided with a perforated bent extension projecting beyond the plate *b*, while the plate *b* is provided at the other end with a similar but oppositely-bent perforated extension, substantially as shown, and for the purpose set forth.

In witness whereof I have hereunto set my hand and seal.

CHARLES N. WEST. [L. S.]

Witnesses:

CHAS. G. CARGILL,
WALTER H. BOWMAN.