

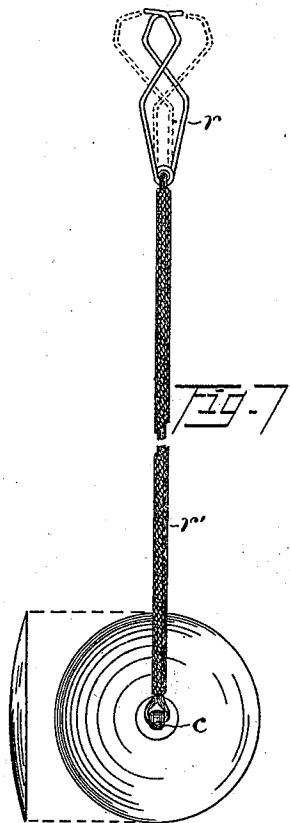
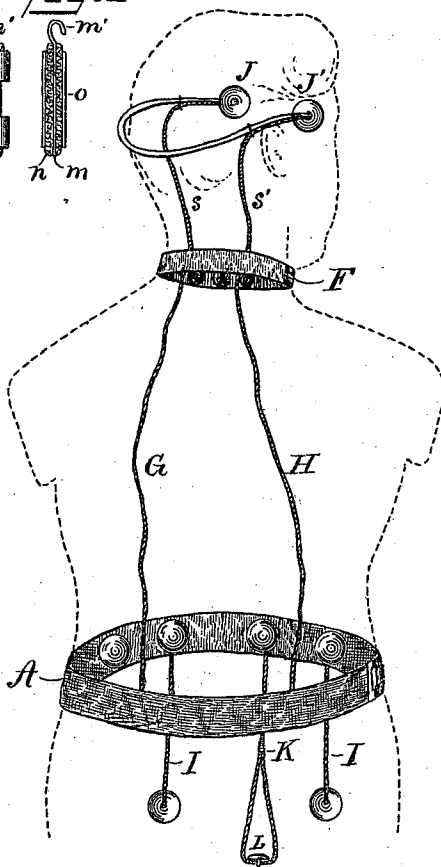
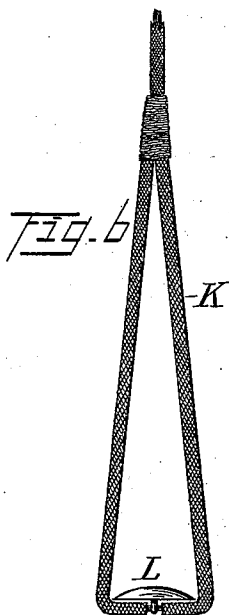
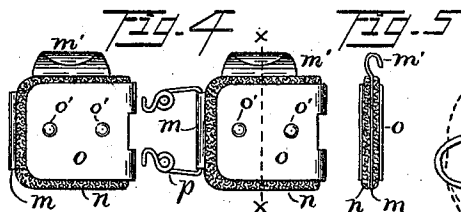
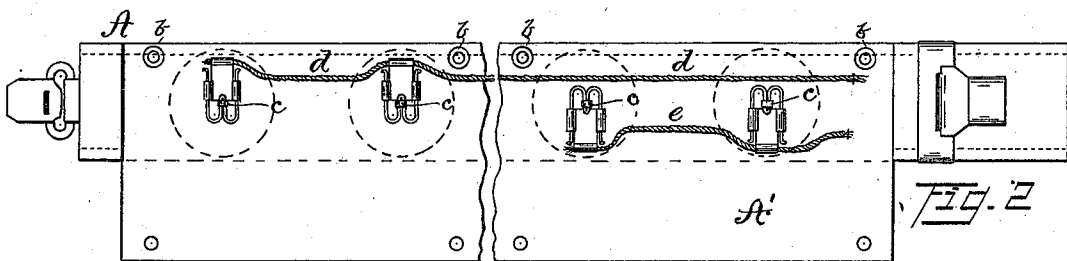
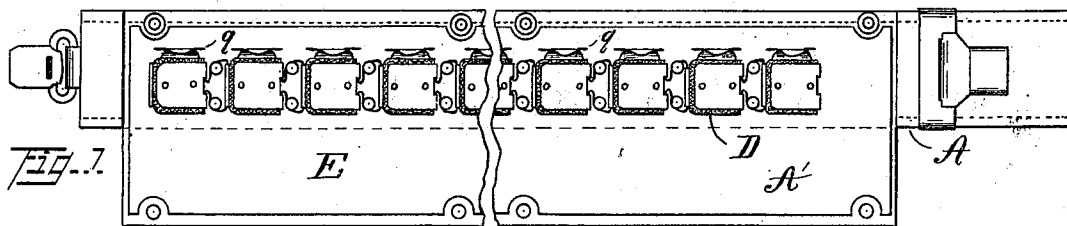
(No Model.)

2 Sheets—Sheet 1.

# J. H. SE CHEVERELL. ELECTRIC BELT.

No. 502,776.

Patented Aug. 8, 1893.



Witnesses.  
*A. J. Spalding*  
*F. A. Butler*

FIG. 3

Inventor.  
*J. H. Se Cheverell*  
By *W. H. Burdick*  
*att.*

(No Model.)

J. H. SE CHEVERELL.  
ELECTRIC BELT.

2 Sheets—Sheet 2.

No. 502,776.

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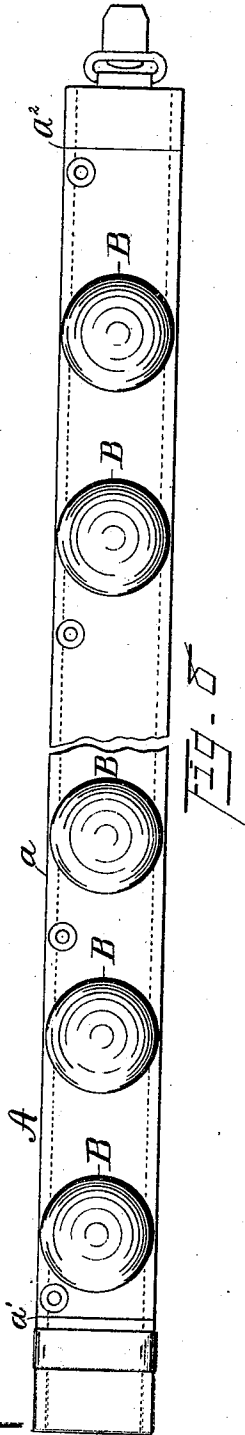


FIG. 8

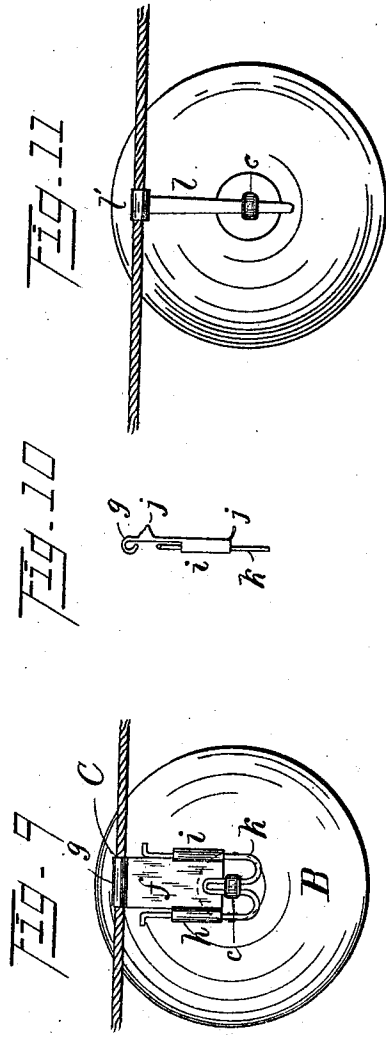


FIG. 9

FIG. 10

FIG. 11

Witnesses.  
*H. Griswold*  
*F. A. butter.*

Inventor.  
*J. H. Se Cheverell*  
 By *W. H. Amis*, atty

# UNITED STATES PATENT OFFICE.

JEAN H. SE CHEVERELL, OF JEFFERSON, OHIO, ASSIGNOR TO HENRY N. BANCROFT, OF SAME PLACE.

## ELECTRIC BELT.

SPECIFICATION forming part of Letters Patent No. 502,776, dated August 8, 1893.

Application filed June 15, 1892. Serial No. 436,883. (No model.)

To all whom it may concern:

Be it known that I, JEAN H. SE CHEVERELL, a citizen of the United States, residing at Jefferson, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Electric Belts and Appliances, of which the following is a description.

The nature of my invention relates to an electric belt and several appliances used in connection therewith for remedial purposes, the object being to produce a simple and adaptable electric apparatus to be worn upon the person without inconvenience to the wearer and being completely under the control of the wearer.

That the invention may be fully seen and understood by others, reference will be had to the following specification and annexed drawings forming part thereof, in which—

Figure 1. is a view of the belt, open, showing the battery in position, the middle portion broken away. Fig. 2. is a similar view with the battery removed, showing the connection with the electrodes. Fig. 3. illustrates the application of the belt and appliances. Fig. 4 is an enlarged view of two of the cells of the battery detached, showing the means for connecting the cells. Fig. 5. is a cross section of one cell on line *x. x.* Fig. 4. Fig. 6. is a view of a portion of a suspensory. Fig. 7. is a view of one of the movable electrodes showing the manner of connecting said electrodes with the belt. Fig. 8. is a view of the inside of the belt, showing the electrodes in position, the middle portion broken away. Fig. 9. is an enlarged detached view, showing a device for connecting the electrodes. Fig. 10. is a side view of same, and Fig. 11. illustrates another means of connection.

Similar letters of reference designate similar parts in the drawings and specification.

By the use of the improved electric belt and appliances a constant electric current may be passed through the body for the treatment of diseases of various kinds especially those of a neurotic character, without inconveniencing the person treated.

The main portion of the belt A. Figs. 1. 2. 3 and 8 is made of any suitable material, preferably silk rubber lined and is double. The ends are provided with any suitable fas-

tening. The upper edge *a* Fig. 8. is open, or one side is cut down as shown at *a' a'* admitting of the opening of the belt as shown in Figs. 1 and 2. When closed for wear, the portion *A'* is attached by means of suitable catches *b. b. b.*

The electrodes B Fig. 8. of which there may be any number, are made of any suitable material, aluminum being preferable owing to its lightness and slight corrosive character. They are preferably circular in form and concavo-convex, having an eye in the center of the concave side as shown at *c.* in the movable electrode Fig. 7 and in Figs. 9. and 11. The electrodes are arranged at intervals on the side of the belt which comes in contact with the body, the eye *c* passing through one thickness of the belt as shown in Fig. 2. The positive and negative wires *d* and *e* extend along the inside of the belt and are connected with the electrodes by means of the couplings C (shown enlarged in Figs. 9 and 10). The part *f.* is of suitable metal, having a loop *g,* at one terminal to receive the wire and the loops *h* and *i* on the sides. The part *f* is attached to the belts by means of clips *j. j.* Fig. 10. The loops *h* and *i* form guides for the sliding catch *k* which completes the connection of the wire with the electrode. A simple pin Fig. 11. with a loop *l'* may however be used in place of the coupling above described.

The battery D Fig. 1. may have any desired number of cells, and extends lengthwise of the belt within a casing E. preferably made of oiled silk. The cells of the battery are constructed with an interior copper plate *m* (best shown in Figs. 4 and 5) with an open loop *m'* at the top thereof. On each side of the plate *m* is a layer of felt *n,* and doubled over on both sides of the felt, is a zinc plate *o.* The cells are joined together by the spring hinges *p.* of the form shown, the copper portion *m* of one cell being hinged to the zinc portion *o* of the next. Each cell is riveted together by the rivets *o' o'.* The felt *n.* insulates the plates from each other and absorbs the acid to run the battery. As hereinbefore stated as many cells as desired may be joined together and placed within the belt, and as many as desired may be connected to increase or decrease the tension of the current,

the connection being made by passing the open loop  $m'$  through a slit  $q$  in the casing E and around the wire  $d$ . By this arrangement the current can be changed from the most delicate to a very strong one, very easily. The band F Fig. 3. used around the neck is of the same construction as the belt A, but is smaller. The band F may be used independent of the belt as it contains its own series of cells. The neck band F and the belt A may be connected by properly insulated wires G and H having catches on each end like  $r$  Fig. 7, or they may be connected direct without the catch. If the catch  $r$  is used, on one end of the wire it clasps the eye of the electrode on the belt while the catch on the opposite end clasps the eye of an electrode on the band F. The detachable electrodes I of which Fig. 7 is an enlarged view are used for carrying the current to portions of the body not accessible to direct contact by the belt A or band F. The electrode is of the same form as the stationary electrode B, the eye  $c$  being connected with a wire  $r'$  having the catch  $r$  at the opposite terminal for forming a connection with one of the stationary electrodes.

Duplex electrodes J and J' Fig. 3 are of the same form as the single ones and are used for the treatment of head ache, catarrh, deafness, &c.. They may be joined in any suitable manner, as with spring wire or a rubber band, and are connected with the neck band F by means of the insulated wires  $s, s'$  which are in electrical connection with the said duplex electrodes.

A suspensory is used in connection with the belt, consisting of a loop K Fig. 6. adapted to be passed around the exposed male genital organs, for the treatment of diseases peculiar to said organs. On the loop is a small electrode L. on which the penis and scrotum

are received and by which the electric current comes in contact with the spermatic cord. The suspensory is connected with the belt by means of the same kind of a catch as that shown at  $r$  Fig. 7.

It is not deemed necessary to encumber the specification by following any particular circuit as it is evident, the current will pass from one electrode through the body to another connected with the battery. The current connections or circuit can be changed by reversing the battery. The battery is prepared for use by immersing it in acid, preferably vinegar. By the use of the improved belt and neck band, it is only necessary to immerse the number of cells to be used, thereby prolonging the life time of the belt, or of the battery.

What I claim, and desire to secure by Letters Patent, is—

1. In an electric belt, the battery cells composed of a plate of copper  $m$  provided with an open loop  $m'$  and incased within felt or its equivalent with a zinc plate clasping the exterior of the felt, in combination with the spring hinge connection  $p$ , connecting the copper of one cell with the zinc of the next, substantially as and for the purpose set forth.

2. The coupling C consisting of a metallic plate, provided with a loop to receive the wire  $d$  or  $e$  and two side loops forming guides for the connecting pin, in combination with the electrodes and battery cells of an electric belt substantially as and for the purpose set forth.

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

JEAN H. SE CHEVERELL.

Witnesses:

C. H. CASE,  
PAUL HOWLAND.