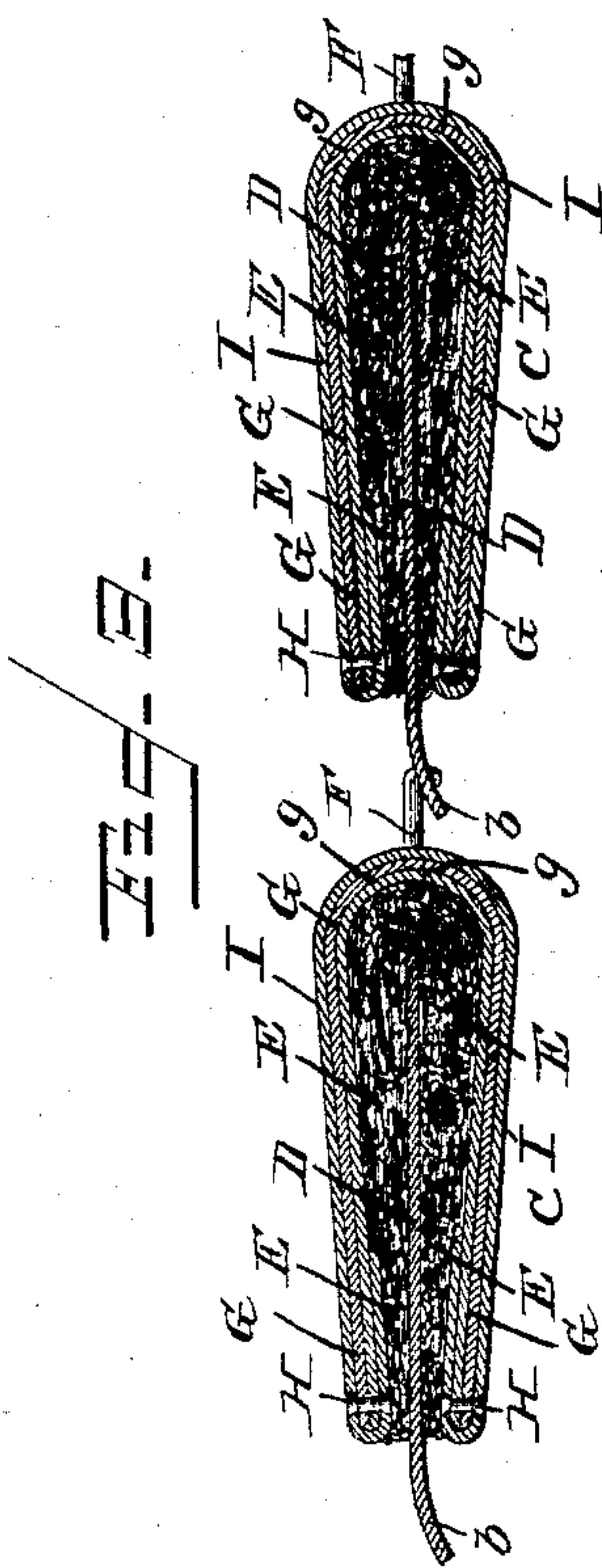
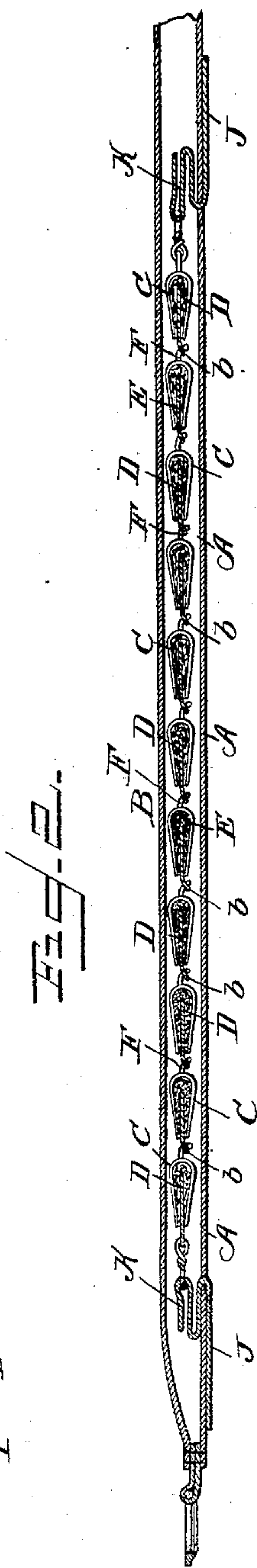
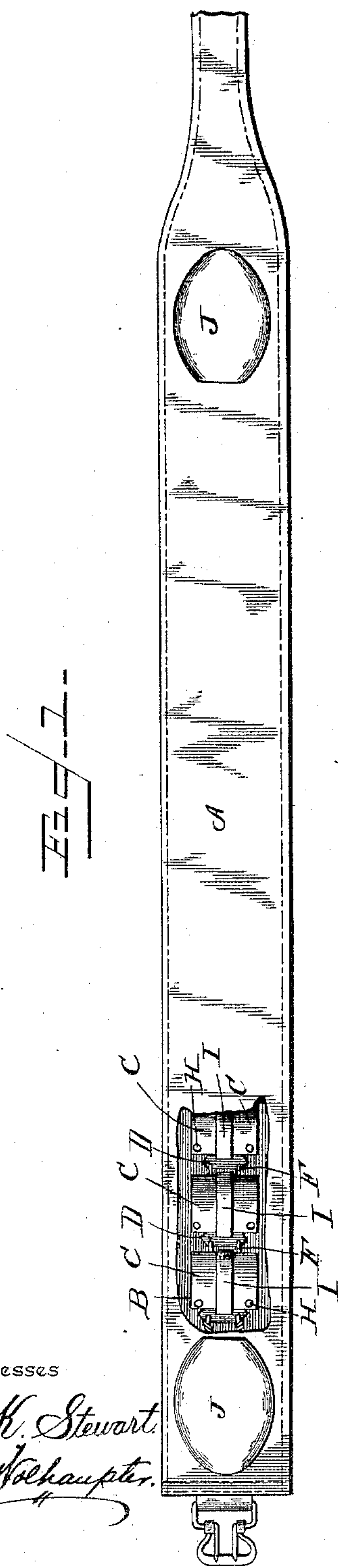


(No Model.)

E. N. TEFFT.
ELECTRIC BELT.

No. 485,754.

Patented Nov. 8, 1892.



Witnesses

C. H. Stewart.
D. P. Volkmann.

Inventor

Emory N. Tefft.

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

EMORY NATHANIEL TEFFT, OF IOLA, KANSAS, ASSIGNOR OF ONE-HALF TO
ROBERT COOK AND CHARLES H. FRYER, OF SAME PLACE.

ELECTRIC BELT.

SPECIFICATION forming part of Letters Patent No. 485,754, dated November 8, 1892.

Application filed July 30, 1892. Serial No. 441,723. (No model.)

To all whom it may concern:

Be it known that I, EMORY NATHANIEL TEFFT, a citizen of the United States, residing at Iola, in the county of Allen and State of Kansas, have invented a new and useful Electric Belt, of which the following is a specification.

This invention relates to electric belts; and it has for its object to provide an improvement in electric belts whereby the same are rendered much more durable and efficient in use, and to this end to construct a belt composed of multiple battery-cells connected in a continuous circuit and so constructed as to secure the best possible results.

With these and many other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a plan view, partly broken away, of an electric belt constructed in accordance with this invention. Fig. 2 is a horizontal sectional view of the same. Fig. 3 is an enlarged detail sectional view of two of the cells of the battery.

Referring to the accompanying drawings, A represents an ordinary cloth body-belt formed with a pocket adapted to receive the battery B, in which the current is generated to supply the body of the wearer therewith, as is contemplated by such devices. The said battery B comprises a multiplicity of battery-cells C, connected in circuit with each other and each contributing to the strength of current generated. Each of the cells C comprises a central copper battery-plate D, which plate is entirely surrounded upon both sides thereof with the absorbent packing E, while one end of the copper plate is projected, as at *b*, to receive the connecting-loop F, connected therewith and the other battery-plate of the adjacent cell. The central copper battery-plate D and the absorbent packing therearound are inclosed within the inclosing zinc battery-plate G. The said battery-plate G comprises a double layer of the metal, as illustrated, and is looped at one end at *g* around one end of the absorbent packing and the in-

closed copper plate and extends forward from such looped end upon both sides of the copper plate up to the opposite end of the packing and to the projecting portion of the intermediate battery-plate, so as to form a compact cell, in which the inner portions thereof are entirely inclosed by the outer battery-plate. By such construction the entire corroding-surface of the zinc is available, as are also both sides of the copper plate inclosed by the same, and means are thereby provided for the generation of a current of greater strength than the current ordinarily secured. The several parts of the cells are suitably bound together by means of the clamping-rivets H.

The connecting-loops F, connected to the projecting ends of the intermediate copper plates, are passed through suitable openings in the looped ends *g* of the surrounding zinc plates, and in order to hold the entire battery together and the cells connected to each other after the zinc plates have become entirely corroded and eaten up between the openings which receive the connecting-loops I employ suitable non-corrosive strengthening and retaining bands I, of tin or other similar metal, encircling the entire zinc plate of each cell and looped therearound between the openings at the looped end thereof and through the connecting-loops F, to secure the result noted, as will be at once apparent.

It will be observed that at the point of contact of the connecting-loops F with the looped ends *g* of the zinc plates the zinc metal will necessarily corrode much faster than the copper wire, and said wire would pull out such corroded portion between the perforations through which the same passes without some means for retaining the plate intact. To provide for this, I employ the non-corrosive tin bands I, which encircle the zinc plate and pass between the loops F and between the perforations through which the loops pass, and therefore necessarily hold the entire cells intact and the entire battery firmly connected together.

At each end of the belt A, upon the inner faces thereof, is secured the opposite electrodes J, provided with the inner receiving-hooks K, adapted to receive the opposite end

loops of the battery to complete the circuit from electrode to electrode, said connection between the ends of the battery and said electrodes providing means for the ready removal 5 of the battery in order to saturate the same when necessary.

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

10 In an electric belt, the combination, with the end electrodes, of the separate cells, each comprising a central battery-plate projected at one end, absorbent packing surrounding both sides of said battery-plate, and an outer 15 double-layer battery - plate looped entirely around the central plate and the surrounding

packing and having perforations in its looped end, non-corrosive retaining-bands encircling the outer plate of each cell and passing between the end perforations thereof, and connecting-loops passing through the perforations in the looped ends of the outer plates on each side of said bands and connected to the projected ends of the central plates, substantially as set forth. 25

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

EMORY NATHANIEL TEFFT.

Witnesses:

ROBERT COOK,

R. H. BENNETT.