ELIZABETH J. FRENCH.

Electro-Therapeutic Appliance.

No. 167,162. Patented Aug. 31, 1875.

Fig. 1.

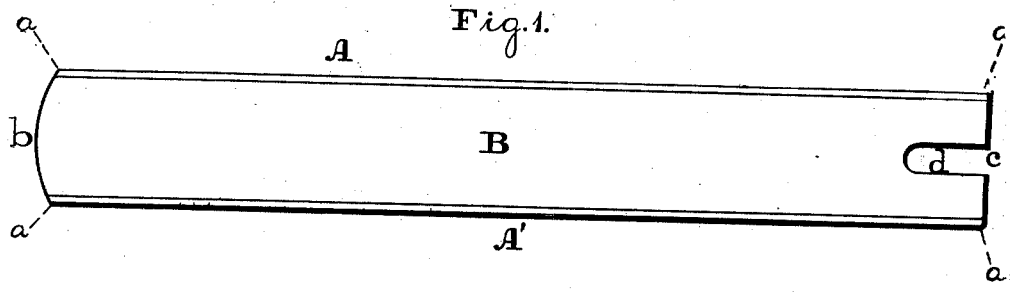


Fig. 2.

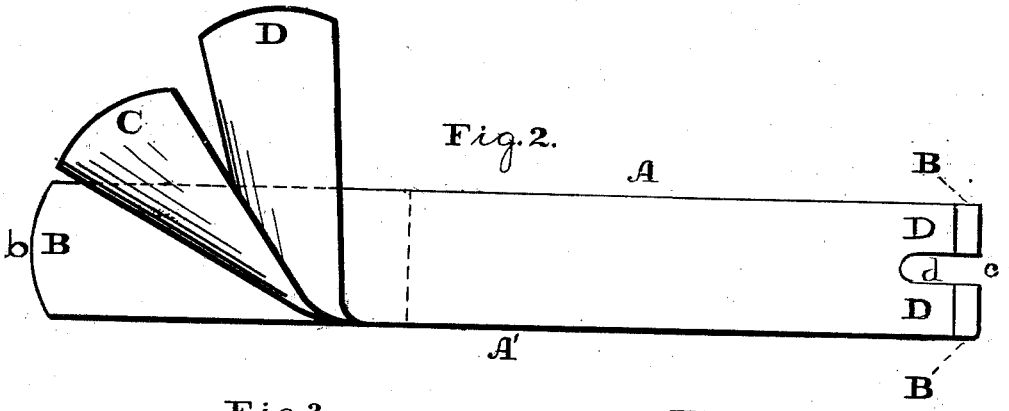


Fig. 3.

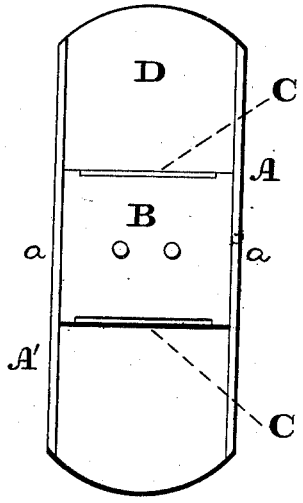
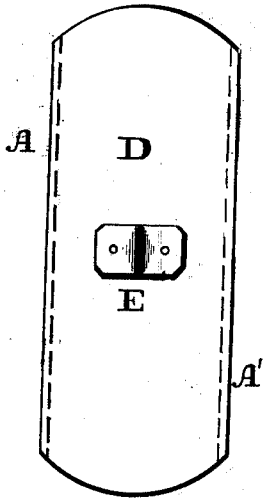


Fig. 4.

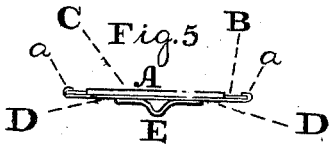


Witnesses:

L. F. Brous,

A. P. Grant.

Fig. 5



Inventor:

Elizabeth J. French.

by John A. Wiederkehr

Atty.

UNITED STATES PATENT OFFICE.

ELIZABETH J. FRENCH, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN ELECTRO-THERAPEUTIC APPLIANCES.

Specification forming part of Letters Patent No. **167,162**, dated August 31, 1875; application filed July 9, 1875.

To all whom it may concern:

Be it known that I, ELIZABETH J. FRENCH, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Electro-Magnetic Appliances for the Human Body; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figures 1 and 3 are face views of the device embodying my invention. Figs. 2 and 4 are views of opposite sides thereof. Fig. 5 is an end view of Figs. 3 and 4.

Similar letters of reference indicate corresponding parts in the several figures.

The object of my invention is to furnish a device which may be used for application to the body alone as a galvanic element, and as an electrode for the conveyance of currents from a separate source of electricity to any desired part of the body; and to this end it consists in those features more particularly hereinafter described and claimed.

Referring to the drawings, A represents a device embodying one form of my invention, which is constructed of three strips, B C D, of metal, respectively, zinc, copper, and brass. These strips are arranged face to face, parallel to each other, and form a compound strip, A′.

The strip of copper is between the strips of zinc and brass, which are thus on the outside, and in order to hold together the several strips the sides of the strip of brass in the longitudinal direction thereof are formed with laps or folds *a*, which are brought over the strip of zinc, thus connecting the two strips, and confining the strip of copper between them. The strip C of copper will be gaged in length so as to be properly proportioned relatively to the lengths of the other strips, B D.

In Fig. 2 the dotted line indicates the length of the strip of copper, which occupies a position at one end, *b*, of the two other strips.

The three strips, being thus in contact at one end of the compound or triple strip A′, generate, through the medium of moisture and perspiration of the human body, a static current of electricity, which is passed off at the other end *c* of the compound strip, said end *c* being formed into the shape of a horse-shoe-magnet by cutting a channel or way, *d*, in the length of the strips, and having the strip of brass somewhat shorter than the strip of zinc, so that the end of the latter is uncovered, as shown in Fig. 2.

The current of electricity that is generated is continuous, and, though silent, takes specific and controllable action, which is to be directed or applied to parts of the human body where disease is located, and to serve as a remedial agent therefor.

In Figs. 3 and 4 the strips of copper and zinc are placed at the middle of the strip of brass, and the two ends of the compound strip form magnets.

To the back of the outer strip of brass I secure an eye, F, which is adapted to receive the end of a wire from a battery.

In this case the compound strip is to be properly located at the diseased part of the body, and the battery then applied, so that the power of the latter will be intensified and rightly directed to the desired spot.

I am aware that elements composed of two metals have been made for application to the body; but I am not aware that three metals or alloys of metal have before been used for this purpose, and in any manner similar to my device.

As I have discovered that these may be so used, and with great advantage and utility, and have invented devices for carrying the same into effect, and having described the same, what I claim as new, and desire to secure by Letters Patent, is—

1. The galvanic element consisting of the triple strip A′, formed of strips of zinc, copper, and brass, substantially as and for the purpose set forth.

2. The triple strip A′, consisting of strips of zinc, copper, and brass, combined at one end, and formed into the shape of a horse-shoe-magnet at the other end, substantially as and for the purpose set forth.

3. The triple strip A′, in combination with the eye E, substantially as and for the purpose set forth.

4. The triple strip A′, consisting of strips of zinc, copper, and brass, one of the strips being formed with the laps or folds *a*, holding or securing together all the strips, substantially as and for the purpose set forth.

ELIZABETH J. FRENCH.

Witnesses:

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