

W. A. CANDEE.
Galvanic Electrodes for Curative Purposes.
No. 201,157. Patented March 12, 1878.

Fig. 1.

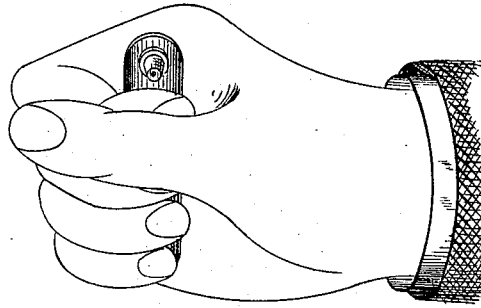


Fig. 2.

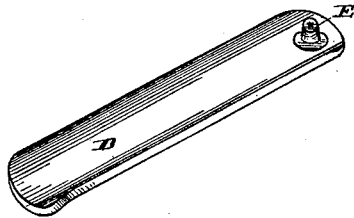
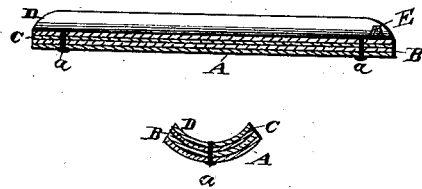


Fig. 3.



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WALES A. CANDEE, OF BRISTOL, CONNECTICUT.

IMPROVEMENT IN GALVANIC ELECTRODES FOR CURATIVE PURPOSES.

Specification forming part of Letters Patent No. **201,157**, dated March 12, 1878; application filed December 29, 1877.

To all whom it may concern:

Be it known that I, WALES A. CANDEE, of Bristol, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Electro-Motive Devices for Nerve Cure; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to electro-motive devices for nerve cure, and is designed to provide a device to be held in the palm of the hand, so as to cross the different subdivisions of the ulnar nerve, and which, by its electrical action, will tend to counteract the various disorders to which the nervous system in a weakened state is subject.

The invention consists of a series of four oblong concavo-convex plates, respectively zinc, copper, platinum, and zinc, the same being fitted one within the other, and secured together by rivets made of one of the said metals. The latter also serve to connect the plates, so as to form of the whole an electro-motor, which shall be adapted by its form to come in contact with the several branches of the ulnar nerve distributed over the hand as the device is held therein.

Referring to the drawings, Figure 1 represents the device as being held in the hand. Fig. 2 is a view, in perspective, of the invention by itself. Fig. 3 shows the same in both longitudinal and cross section.

The series of plates constituting the device is composed of four metallic substances, which are, respectively, electro-positive and electro-negative in their relation to one another, the two outer or exposed plates being each made of zinc, while the two inner plates are severally of copper and platinum. They are of approximately the same length and width, each concavo-convex in transverse section, of oblong form, and of length sufficient to extend over the hand, and across the divisions of nerves which ramify the palm of the hand from the wrist to the fingers.

The first plate, A—that which forms the convex side of the device, and is designed to be put directly against the palm of the hand—is made of zinc. The second plate, B, is of copper. The third one, C, is platinum, and the

fourth one, D—that against the concave side of which the fingers are to be put—is made of zinc, the same as in the case of the first plate. These several plates are secured together by rivets *a*, which may be made of either of the above-mentioned three metals; but the platinum is preferable.

The electrical action which obtains from this use of the device is due apparently from the chemical actions which result from the perspiration of the person and the oxygen of the atmosphere, together with the animal heat of the body.

In use, the hand of the person holding the device preferably should rest easily in the lap or on a table or rest of any suitable nature, so that the position may be unrestrained and without effort. The tendency of this will be to produce a calming and tranquilizing effect upon the system, to relieve it from the many different nervous disorders, such as irritations, twitchings, contractions, and spasms of the nerves, together with nervous headache and similar affections. Its tendency is also to rest and relieve a person when tired and exhausted, by reason of either mental or physical exertion and strain. So, too, if held in the hand by a person who is unable to fall to sleep, it will tend to quiet and put such a one to sleep.

I am aware that different forms of electric therapeutic devices have been used in body-wear, and I do not include within my invention, broadly, a series of galvanic elements adapted to be applied to various parts of the body for curative purposes.

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

The described electric therapeutic device, consisting of the series of four metallic plates, respectively zinc, copper, platinum, and zinc, the same being of oblong concavo-convex form, fitted together one within the other, and adapted to receive the tips of the fingers as the same is held in the hand, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 27th day of December, 1877.

WALES A. CANDEE.

Witnesses:

J. H. SESSIONS,
M. L. TIFFANY.