

No. 682,089.

Patented Sept. 3, 1901.

O. L. LEACH.
MEDICINAL ELECTRODE.
(Application filed June 8, 1901.)

(No Model.)

Fig 1

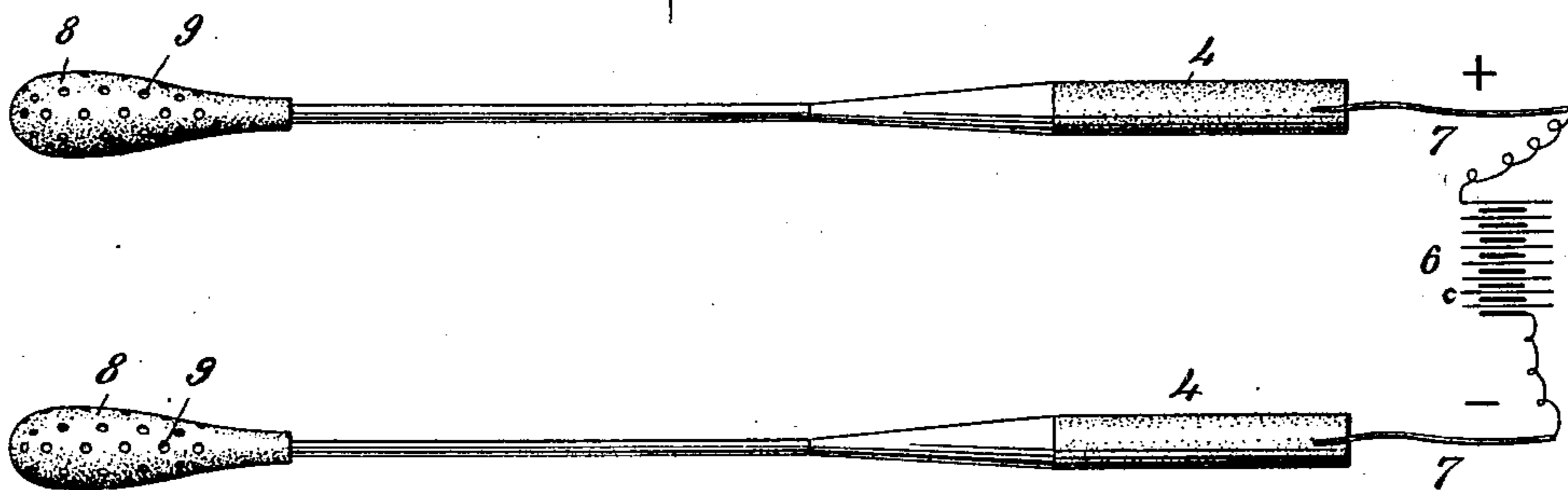
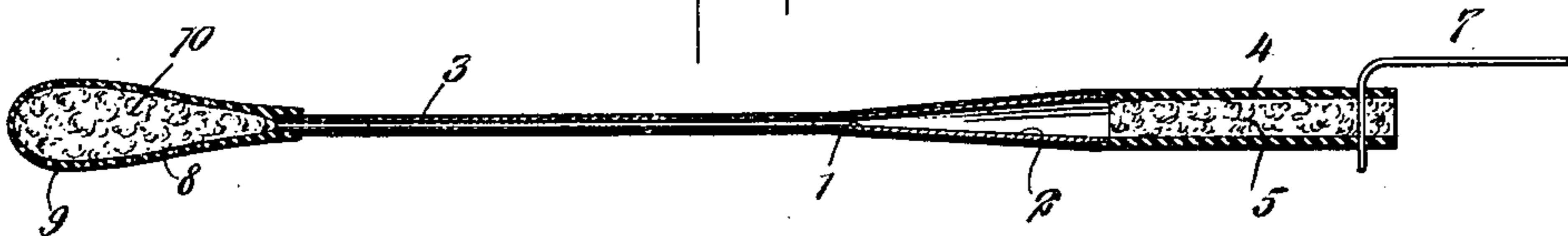


Fig 2



WITNESSES:

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ORVILLE LIVINGSTON LEACH, OF PROVIDENCE, RHODE ISLAND.

MEDICINAL ELECTRODE.

SPECIFICATION forming part of Letters Patent No. 682,089, dated September 3, 1901.

Application filed June 6, 1901. Serial No. 63,408. (No model.)

To all whom it may concern:

Be it known that I, ORVILLE LIVINGSTON LEACH, a citizen of the United States, and a resident of Providence, in the county of Providence and State of Rhode Island, have invented a new and Improved Medicinal Electrode, of which the following is a full, clear, and exact description.

This invention relates to improvements in electrodes for applying electric treatment to increase the vitality in animal bodies to cure diseases, and by supplying force which is adapted for the use of organized bodies to give strength and eradicate microbes and germs by subjecting them to the force which while beneficial to the higher types of organisms will overpower and destroy the disease germs. It is known to scientists that the filaments of nerves are tubular and that the nerve impressions travel with a spirial motion.

It is the object of my invention, therefore, to provide an electrode so constructed that the electric current passing through it will stimulate the nerve motion.

I will describe a medicinal electrode embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both figures.

Figure 1 shows a plan view of two electrodes embodying my invention, and Fig. 2 is a longitudinal section of one of the electrodes.

The electrode comprises a tube 1, of copper or other suitable conducting material. The major portion of this tube is of quite small interior diameter; but one end, as indicated at 2, is gradually enlarged or funnel-shaped. This portion of the electrode I term the "modulator," as it controls the direction of flow of the current. It has a covering 3 of insulating material—such, for instance, as hard rubber. Connected to and extending from the enlarged end of the tube is a tube 4, of hard rubber or other insulating material, within which is fine sponge or the like 5, which is in electrical connection with a source

of electricity (here shown as a battery 6) by means of a wire 7, said wire passing through opposite openings in the tube 4, and consequently passing through the sponge material. At the opposite end is a tubular handle 8 of insulating material and provided with a series of perforations 9. Within this handle is a sponge material 10.

While I have shown the two electrodes as merely connected to a source of electricity, and therefore movable one relatively to the other, they may be, if desired for certain treatments, both attached to a base-board. I have also shown the handles 8 as closed at the end; but it will be within the spirit of my invention to leave the ends open, so that the sponge material may protrude for easy application to the body.

In operation the handles may be held in a person's hand, the person's body closing the circuit. The current will pass from one electrode—that is, through the sponge material 10—into one hand of the person through the body and through the other hand and out through the other electrode. Of course one of the electrodes may be moved to any part of the body as desired, while the other electrode is held in the hand.

It may be here stated that before commencing the operation the sponge material should be dampened or wet.

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

1. A medicinal electrode, comprising a tubular conductor, having a gradually-enlarged end, a tube of insulating material extending from said enlarged end, a sponge material arranged in said insulating-tube, a hollow handle on the other end of said conducting-tube having perforations, and a sponge material in said handle, substantially as specified.

2. A medicinal electrode, comprising a copper conducting-tube having the major portion of its length of reduced interior diameter and the other portion of its length of funnel shape, a covering of insulating material on said conducting-tube, a tube of insulating

material extended from the larger end of the tube, a sponge material in said insulating-tube, a hollow handle on the opposite end of the conducting-tube and having perforations, 5 and a sponge material in said handle, substantially as specified.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

ORVILLE LIVINGSTON LEACH.

Witnesses:

LOUISE BROWN,
R. W. FARR.