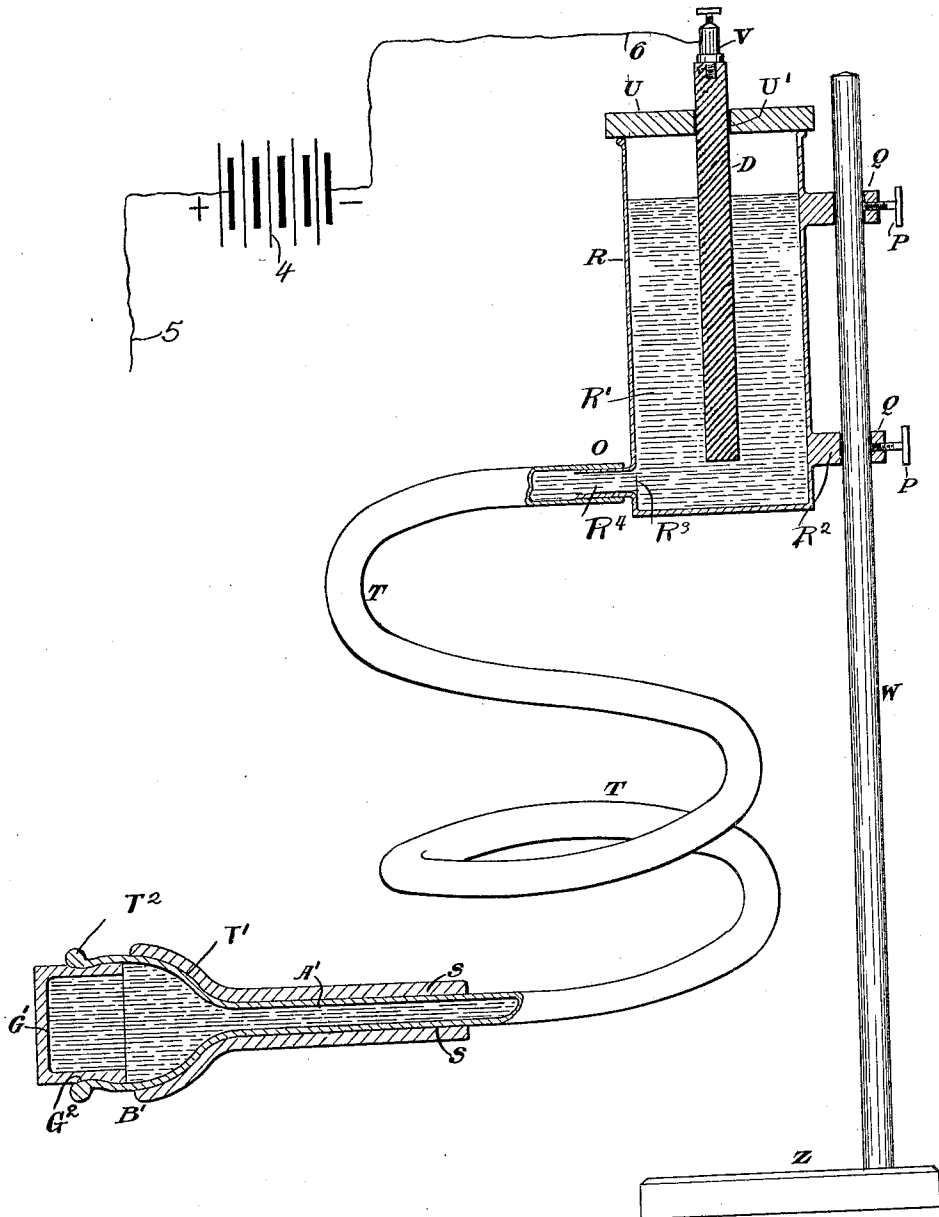


H. BONIS.
ELECTROTHERAPEUTIC FLUID ELECTRODE.
APPLICATION FILED AUG. 3, 1912.

1,108,686.

Patented Aug. 25, 1914.



Witnesses:
Charles A. Dillon

Inventor:
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UNITED STATES PATENT OFFICE.

HARRY BONIS, OF LISTOWEL, ONTARIO, CANADA.

ELECTROTHERAPEUTIC FLUID ELECTRODE.

1,108,686.

Specification of Letters Patent.

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Application filed August 3, 1912. Serial No. 713,123.

To all whom it may concern:

Be it known that I, HARRY BONIS, a subject of the King of Great Britain, residing at Listowel, Ontario, Canada, have invented certain new and useful Improvements in Electrotherapeutic Fluid Electrodes, of which the following is a specification.

My invention relates to improvements in electro-therapeutic devices and the object of the invention is to devise a device of the class in which positive and negative electrodes are placed against the body of the patient, one on either side and the object of the invention is to devise an apparatus of this class in which the electrolytic fluid is brought into close and intimate contact with the surface of the body and it consists essentially of a negative electrode designed to be placed in contact with the body and through which the current is to pass, such electrode being hollow and which comprises a porous cup and a flexible tube having an enlarged end fitting over the mouth of the cup and gripping the outer periphery thereof and a receptacle containing an electrolytic fluid and having an orifice near the bottom around which the other end of the tube is connected as hereinafter more particularly explained by the following specification.

The figure represents an enlarged sectional view of that portion of the apparatus to which my invention pertains.

4 is a battery.

5 is a circuit wire connecting the positive terminal of the battery 4 with a positive electrode not shown.

R is a container containing a suitable electrolytic fluid R'.

W is a standard support for the container R, the support W being connected at the bottom to a suitable base Z.

R² are lugs extending from the container R having orifices Q through which the standard W freely extends.

P are set screws by which the container may be adjustably secured in place. The

container R is also provided with a suitable insulating cover U having a central orifice U'.

V is a binding post secured to a bar D of conducting material extending through the insulating piece U into the electrolytic fluid R'.

6 is a circuit wire connecting the binding post D with the negative terminal of the battery 4.

R³ is an orifice in the wall of the container R in proximity to the bottom thereof and R⁴ is a nipple extending from the container around the orifice R³.

A' is the negative hollow electrode comprising a porous cup G' having an annular surrounding groove G² in its outer periphery, and a flexible rubber tube secured at one end around the nipple R⁴, the opposite end of the tube being provided with an enlargement T' having a surrounding edge bead T² fitting into the annular groove G² of the porous cup G'.

S is a sleeve preferably of hard rubber rotatably mounted on the flexible tube T so as to form a handle.

By this construction the negative electrode may be easily adjusted, the fluid entering the cup and percolating slowly through the pores thereof to the patient's body.

What I claim as my invention is:

An electro-therapeutic device, including a porous cup-shaped terminal and a flexible tube having an end-enlargement encompassing and gripping said cup-shaped terminal, adapting it to extend over the mouth of the latter, as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HARRY BONIS.

Witnesses:

B. EDWARD DAY,
W. A. DILLON.