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PATENTED JUNE 28, 1904.

J. P. BROWN.

ELECTRICAL APPARATUS FOR THERAPEUTICAL PURPOSES.

APPLICATION FILED APR. 20, 1904.

NO MODEL.

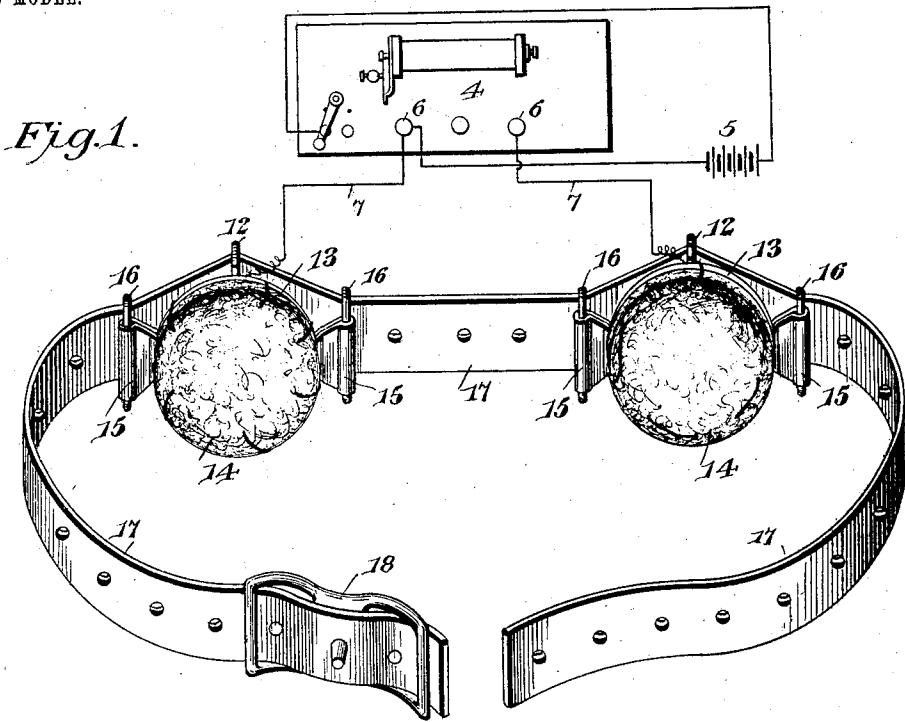


Fig. 2.

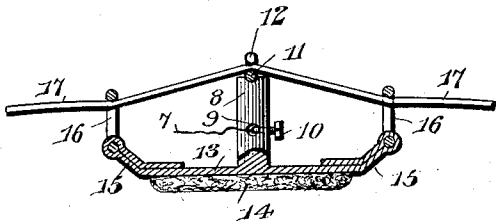
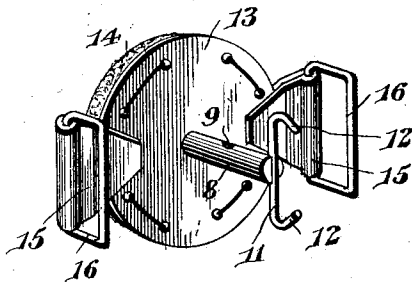


Fig. 3.



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JOHN PUMPHREY BROWN, OF ROGERS, ARKANSAS.

ELECTRICAL APPARATUS FOR THERAPEUTICAL PURPOSES.

SPECIFICATION forming part of Letters Patent No. 763,657, dated June 28, 1904.

Application filed April 20, 1904. Serial No. 204,063. (No model.)

To all whom it may concern:

Be it known that I, JOHN PUMPHREY BROWN, a citizen of the United States, residing at Rogers, in the county of Benton and State of Arkansas, have invented a new and useful Electrical Apparatus for Therapeutic Purposes, of which the following is a specification.

This invention relates more particularly to improvements in electrodes that are employed for contact with the human body to secure the passage of the electrical current thereinto.

The object is to provide a structure of this character wherein suitable pressure of the electrode against the body may be obtained at all times, so that a proper contact may be maintained, with a consequent minimum resistance afforded by the same.

Another important object is to provide a device of this kind that can be readily adjusted upon its support, and thus applied to the body when desired.

The preferred form of construction is illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective view of a belt with the improved electrode applied thereto, the apparatus with which said electrodes are employed being shown diagrammatically. Fig. 2 is a sectional view through one of the electrodes. Fig. 3 is a rear perspective view of an electrode.

Similar reference-numerals indicate corresponding parts in all the figures of the drawings.

In order to show a complete apparatus, an induction-coil of well-known form is illustrated in outline and is designated generally by the reference-numeral 4, the current being supplied thereto from a battery 5. The secondary coil of the apparatus has suitable terminals 6, from which lead conducting-wires 7, that are attached to the improved electrodes hereinafter described. Said electrodes can be successfully employed for therapeutic work either in connection with therapeutic or static appliances.

As the electrodes to which the conductors 7 are connected are exact duplicates, a description of one is thought to be sufficient. A combined supporting and binding post 8 is

employed, having an opening 9 between its ends adapted to receive the terminal 7 of the conducting-wire, a suitable set-screw 10 being preferably mounted in the post to secure the wire in the opening. The outer end of this post is provided with a belt-engaging element in the form of a stirrup 11, having inwardly-turned oppositely-disposed hook ends 12. The inner end of the post 8 carries a contact device comprising a plate 13, to the exposed face of which is secured a contact-pad 14, formed of any suitable material. The plate 13 is preferably in the form of a circular disk and has at diametrically opposite sides, and consequently on opposite sides of the post 8, outstanding ears 15, which are rearwardly offset, as shown, and carry loops 16, that may be rigidly secured to the ears 15 or have swinging movement therein, as desired. In connection with these electrodes a supporting member therefor in the form of a body-strap 17 is employed, one of the terminals thereof having a suitable buckle 18 for securing the ends together. This strap, as shown in Figs. 1 and 2, passes freely through the loops 16 and stirrup 11, and because the stirrup is out of alinement with the loops the portions of the strap in rear of the electrode will be offset, as shown. It will therefore be apparent that when the device is applied to a patient and the strap tightened the electrodes will bear firmly against the body, so that efficient electrical contacts are secured. At the same time the strain due to the offsetting of the strap will hold the electrodes against accidental slipping. It will be apparent, however, that the electrodes can be adjusted upon the strap as desired, so that the contacts may be made at different points. These two features—namely, the adjustability and firm pressure—are important conditions in successful treatment by applying electricity, and both are in the present instance secured by very simple structures.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, pro-

portion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In electrical apparatus of the class described, an electrode comprising a support, a
10 contact element secured to one end of the support, and a belt-engaging element carried by the opposite end of the support.

2. In electrical apparatus of the class described, an electrode comprising a supporting-
15 post, a contact element carried by the inner end of the supporting-post, and a belt-engaging element carried by the outer end of the post.

3. In electrical apparatus of the class described, an electrode comprising a supporting-
20 post having means between its ends for securing a conductor-wire thereto, a contact-pad secured to the inner end of the post, and a belt-receiving stirrup secured to the outer end
25 of the post.

4. In electrical apparatus of the class described, the combination with a belt, of a supporting - post having its outer end slidably
30 mounted on the belt, said post projecting inwardly from said belt, and a contact-pad carried by the inner end of the post.

5. In electrical apparatus of the class described, an electrode comprising a contact

element, a supporting-post carrying the contact element, a belt-engaging device carried
35 by the outer end of the post, and belt-engaging devices secured to the contact element on opposite sides of the post.

6. In electrical apparatus of the class described, an electrode comprising a supporting-
40 post, a contact device comprising a plate secured to the inner end of the post, a pad mounted on the plate, loops secured to the opposite sides of the plate, and a stirrup secured
45 to the outer end of the post, in combination with a body-belt slidably passing through the loops and stirrup.

7. In electrical apparatus of the class described, the combination with a supporting
50 member, of an electrode freely slidable thereon and having a contact device offset from and held in spaced relation to the supporting member.

8. In electrical apparatus of the class described, the combination with a supporting
55 body-strap, of an electrode freely slidable thereon and having a contact device located in spaced relation to the inner face of the belt and freely movable with the electrode.

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

JOHN PUMPHREY BROWN.

Witnesses:

F. M. POLLOCK,

T. H. McCLINTON.