S. BROOKS, Jr. & C. R. ANDERSON.

ELECTROTHERAPEUTIC APPARATUS.

APPLICATION FILED JUNE 9, 1913.

1,155,036.

Patented Sept. 28, 1915.

Fig. 1.

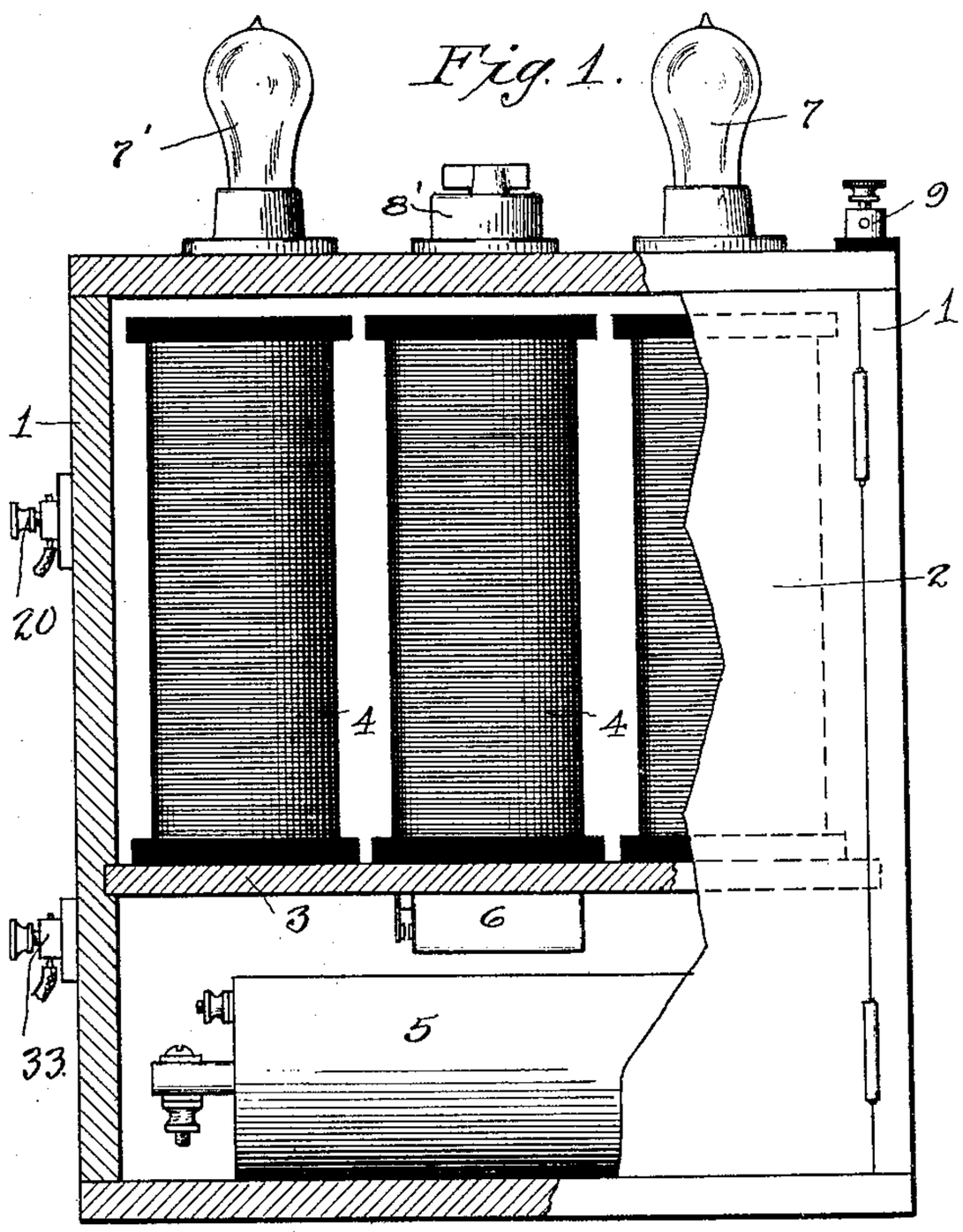

Fig. 2.

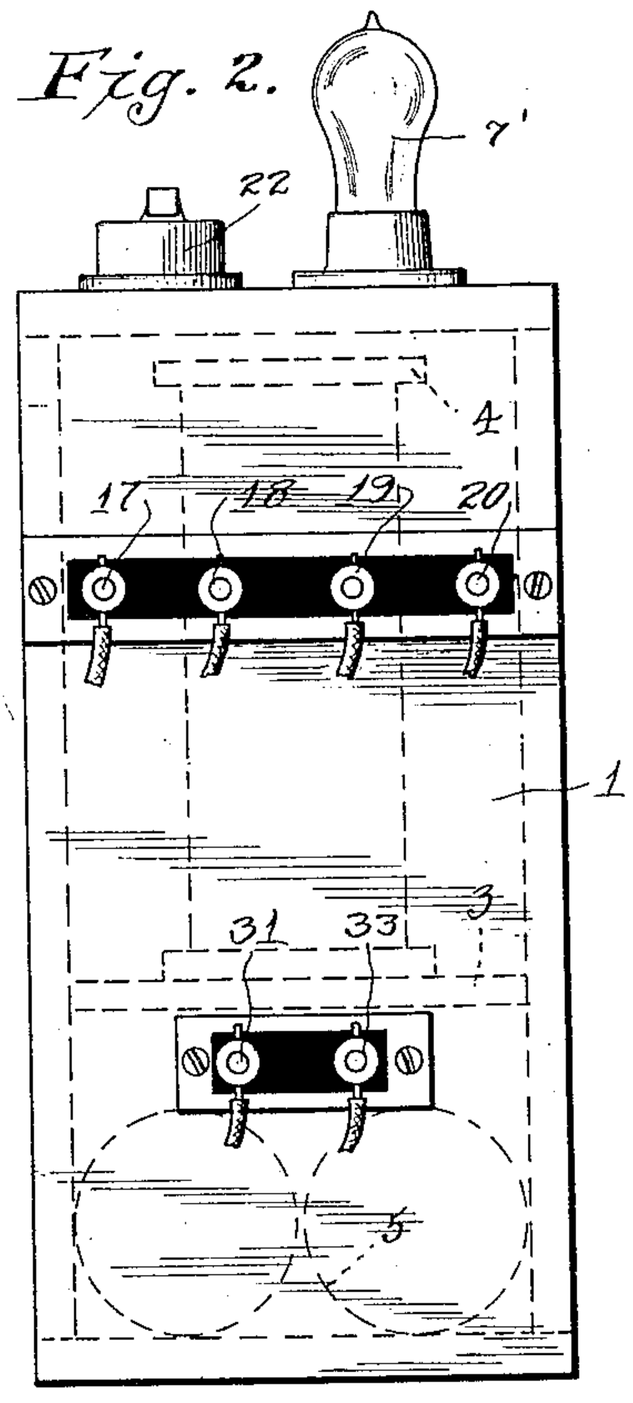

Fig. 3.

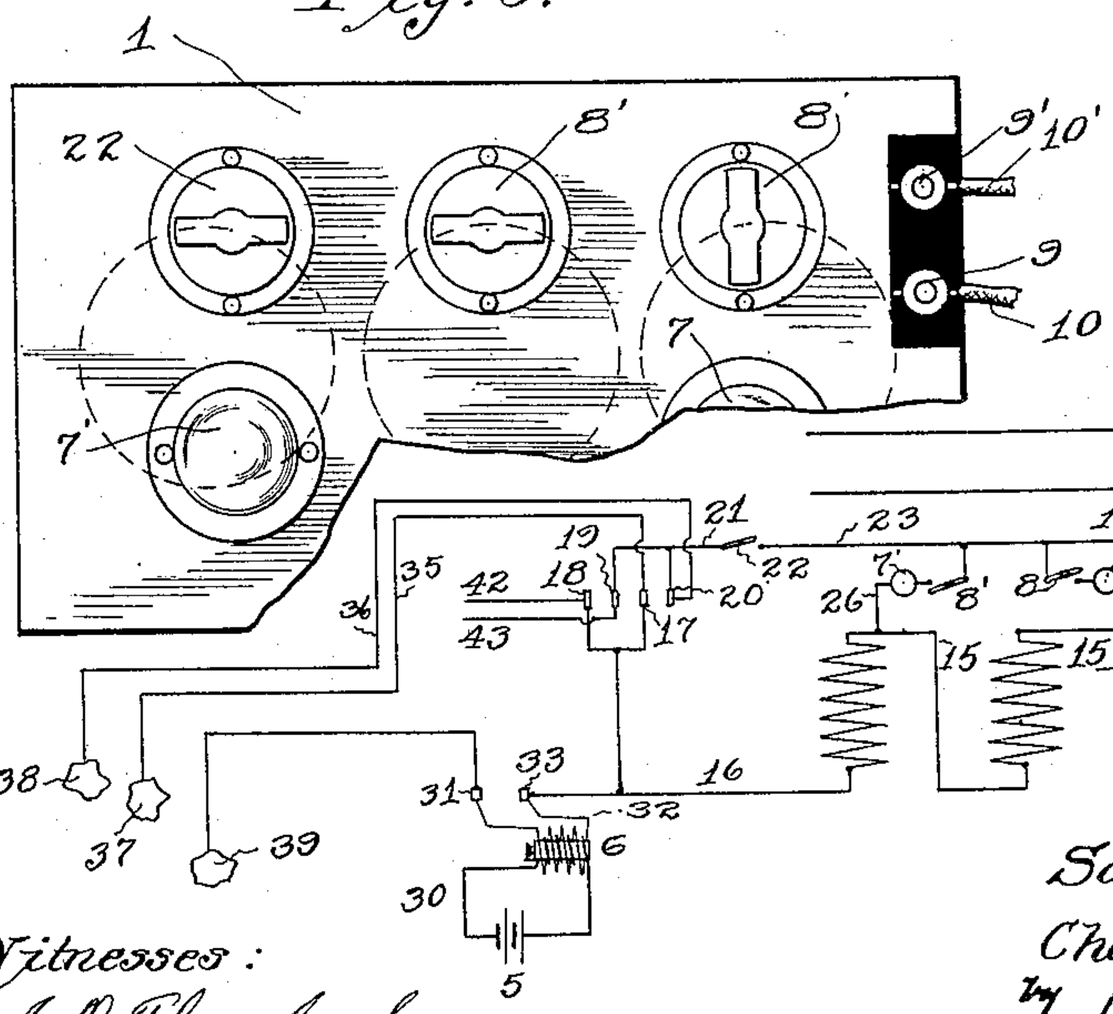

Fig 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

SAULSBURY BROOKS, JR., AND CHARLES R. ANDERSON, OF LOS ANGELES, CALIFORNIA.

ELECTROTHERAPEUTIC APPARATUS.

1,155,036. Specification of Letters Patent. Patented Sept. 28, 1915.

Application filed June 9, 1913. Serial No. 772,531.

To all whom it may concern:

Be it known that we, SAULSBURY BROOKS, Jr., and CHARLES R. ANDERSON, both citizens of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Electrotherapeutic Apparatus, of which the following is a specification.

This invention relates to an electric therapeutic device comprising means for applying electric current to the human body in such manner as to stimulate the circulation of the blood and vitalize the organs through which it is passed.

One object of the invention is to provide means whereby an intermittent or interrupted current may be applied to the body simultaneously with a direct current.

The accompanying drawings illustrate embodiments of our invention, and referring thereto:

Figure 1 is a front elevation of the device, the door of the inclosing device being partly broken away. Fig. 2 is a side elevation of the device. Fig. 3 is a plan view thereof partly broken away. Fig. 4 is a diagram of the circuit connections.

The device constituting our invention is mounted in a suitable case or box 1 having a door 2 for giving access to the several parts of the device. Within this case is a horizontal partition 3 dividing the case into upper and lower compartments. In the upper compartment are contained several resistance coils 4, the lower compartment containing battery cells 5, an electric interrupter or induction coil 6. Lamps 7 and 7′ are mounted on top of the case 1. Switches 8, 8′ and 22 are provided on the top of the case for controlling the electric circuit as hereinafter set forth. Binding posts 9 and 9′ on the case are connected respectively to wires 10, 10′ leading to a suitable plug for connection with a wall socket to supply current to the device from any suitable direct current electric supply circuit. Terminals in the form of binding posts or connection blocks 17, 18, 19, 20, 31 and 33 are provided on the side of case 1 to facilitate making the proper connections.

The electric connections are shown in Fig. 4, where 11 and 12 designate the wires of the electric supply circuit which are connected by wires 10 and 10′ to the binding posts 9, 9′ aforesaid. From binding post 9′, a wire 13 leads to one of the resistances 4, said resistances being connected in series by connections 15 and the last resistances being connected by wire 16 to terminals 17 and 18. Terminals 19 and 20 are connected by wires 21 to a switch 22, whose fixed contact is connected to a wire 23 leading to binding post 9 aforesaid. A shunt connection 25 across the line, between the wires 13 and 23, includes lamp 7 and switch 8, and another shunt connection 26, between one of the connecting wires 15 and wire 23, includes lamp 7′ and switch 8′. The battery cells 5 are connected in a circuit 30, including an interrupter or induction coil 6 connected by wires 32 to terminals 31 and 33. Flexible electric conducting connections or wires 35 and 36 are connected respectively to terminals or binding posts 17 and 20, and are connected at their other ends to applicators such as sponges 37 and 38 adapted when moistened to make effective contact with the human body. Another sponge or applicator 39 is connected to binding post or connecting block 31. If it is desired to use another set of sponges or applicators the same may be connected by wires indicated at 42 and 43 to the respective binding posts or terminals 18 and 19.

The device is used as follows: One of the sponges, for example, sponge 37, is placed in any suitable position on the human body, for example, at the scrotum. Another sponge, for example, sponge 38, is placed in any other suitable position, for example, in contact with the sole of one foot. The switch 22 being closed and the device being put in connection with a supply circuit through the wires 10 and 10′, current passes from said supply circuit through the wire 10′ and wire 13 to the resistances 4, through said resistances and wire 16 to terminal 17 and thence through wire 35 to the sponge 37, the current passing from said sponge through the portion of the human body between the sponges to the other sponge, 38, and then back through wire 36 to the terminal 20, switch 22 and wire 23 to the other side of the line. The resistances 4 included in this circuit are sufficient to reduce the current flowing through the body to an amount which is safe and beneficial in its effect. In applying the sponges one or both of them may be shifted from time to time, for example, the sponge 38 aforesaid may be

shifted alternately from one foot to the other, so as to give repeated treatments. If desired, the operator can include his own body in the circuit by grasping one of the sponges in one hand, and placing his other hand on the body of the patient where treatment is desired. The resistance of the coils 4 may be quite high, for example, for the three coils and for use on 110 volt circuit, the coils may comprise 1500 feet of #28 B. & S. wire. At the same time the other sponge 39 may be applied to the same part of the body as the sponge 38 or to an adjacent part, and the battery 5 then operates to send the current through the induction coil or interrupter and through this part of the body, causing an interrupted current effect superposed upon the continuous current and acting concurrently therewith.

By closing one or both of the switches 8, 8′, the lamps 7 and 7′ may be energized, so as to indicate that the device is operative and also to furnish illumination.

What we claim is:

1. In electro-therapeutic apparatus, a continuous current circuit, an applicator connected with each side of said circuit, resistance in said circuit, a secondary relatively strong interrupted circuit having one side connected with one side of the first circuit, and an applicator connected with the other side of the secondary circuit.

2. In electro-therapeutic apparatus, a continuous current circuit, an applicator connected with each side of said circuit, resistance in said circuit, a secondary relatively strong interrupted circuit having one side connected with one side of the first circuit, an applicator connected with the other side of the secondary circuit, and circuit-closing means connected in the side of the first circuit that is free from connection with the secondary circuit whereby the continuous current circuit may be cut out without affecting the interrupted current circuit.

In testimony whereof, we have hereunto set our hands at Los Angeles, California, this 31st day of May, 1913.

SAULSBURY BROOKS, Jr.
CHARLES R. ANDERSON.

In presence of—
Arthur P. Knight,
Martha M. Lange.