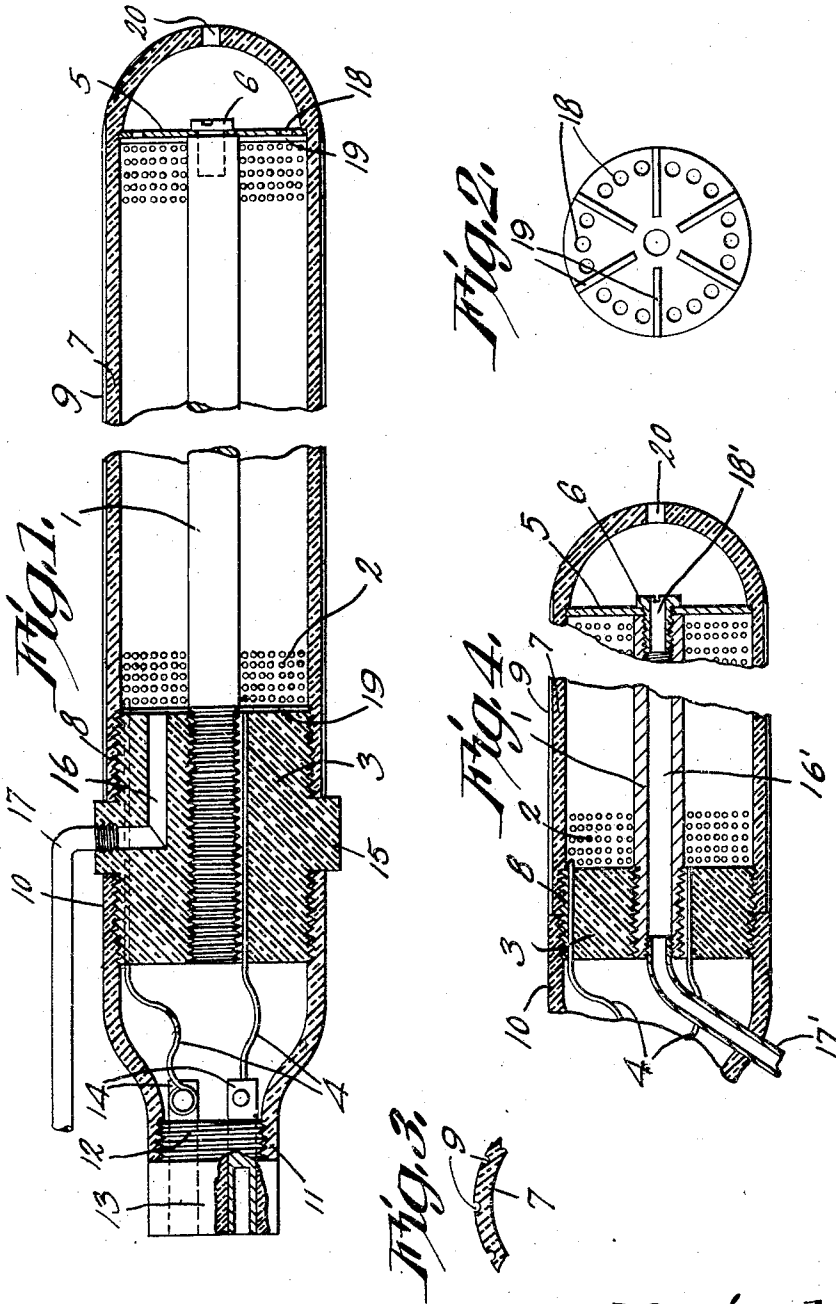


C. M. SWINGLE.
ELECTROTHERAPEUTIC REJUVENATOR.
APPLICATION FILED DEC. 2, 1916.

1,253,107.

Patented Jan. 8, 1918.



Witnesses

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CHARLES M. SWINGLE, OF CLEVELAND, OHIO.

ELECTROTHERAPEUTIC REJUVENATOR.

1,253,107.

Specification of Letters Patent.

Patented Jan. 8, 1918.

Application filed December 2, 1916. Serial No. 134,612.

To all whom it may concern:

Be it known that I, CHARLES M. SWINGLE, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Electrotherapeutic Rejuvenator, of which the following is a specification.

The present invention appertains to apparatus for the treatment of diseases and the like, and is particularly an improvement over the electrotherapeutic rejuvenator disclosed in my co-pending application filed September 18, 1916; Serial No. 120,799.

It is the object of the invention to provide a rejuvenator of the type disclosed in my co-pending application and provided with means for the flow of a fluid or solution therethrough for douching.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein:—

Figure 1 is a longitudinal section of the device, portions being shown in elevation and portions being broken away.

Fig. 2 is a rear face view of the disk.

Fig. 3 is a fragmental cross section of the shell.

Fig. 4 is a fragmental longitudinal section of a modified form.

The general construction of the device is practically the same as that disclosed in said application, and includes a core 1 of soft iron or other magnetic material, upon which is mounted an electromagnet or resistance coil 2 comprising a winding of insulated wire. An annulus 3 of hard rubber or other insulating material is threaded upon the inner end of the core 1 and one end of the coil 2 rests thereagainst, while a disk 5 of hard rubber or other insulating material is secured to the outer end of the core 1 by means of a securing screw 6, and bears against the opposite end of the coil 2, said coil being held upon the core 1 between the annulus 3 and disk 5. The terminals 4 of the coil 2 extend through suitable apertures provided in the annulus 3.

A tubular shell or case 7 of hard rubber or other insulating material is slipped over the coil 2 and disk 5 and has its outer end closed and preferably rounded, while the inner end 8 of the shell 7 is open, and is threaded upon the annulus 3, whereby to hold said shell in place to house or inclose the coil. The shell 7 is provided with grooves or superficial recesses 9 in its periphery which can extend longitudinally, spirally or in any other direction, for receiving a suitable medicament.

A sleeve or reducer 10 of hard rubber or other insulating material has its larger end threaded upon the annulus 3 and spaced from the open end of the shell 7. The reducer or smaller end 11 of the sleeve 10 is internally threaded, and receives the thread-extension 12 of a connecting plug or member 13 bearing against said end 11. A pair of contact members 14 extend longitudinally through the plug 13 and are socketed for engaging pins of another member for electrically connecting the coil 2 with conductors leading to a suitable battery or other source of electrical energy. The members 14 provide binding posts projecting into the sleeve 10 and to which the terminals 4 of the coil 2 are attached. The terminals 4 are attached to the members or binding posts 14 before the sleeve 10 is attached to the annulus 3 and plug 13, and the threads at the opposite ends of the sleeve 10 are right and left handed, whereby after the terminals 4 are connected to the binding posts 14, the sleeve 10 can be simultaneously threaded into engagement with the annulus 3 and plug 13 to assemble said parts, the terminals 4 being slackened and housed within the sleeve 10. The plug 13 can be attached to any suitable connecting member, for supplying the coil 2 with electrical energy, for heating the device to the desired temperature, and for creating a magnetic field to assist in the curative properties of the device. The current can be controlled by a suitable rheostat, and the device can be manipulated in any suitable manner, according to the circumstances. The medicament applied to the grooves 9 is to be heated by the electrical energy and by the heat of the tissues, and osmotic action is rendered both rapid and agreeable under the influence of magnetism.

In carrying out the present invention, the annulus or coupling member 3 is provided

between its ends with a collar 15 against which the ends of the shell 7 and sleeve 10 abut, and the annulus 3 has a fluid passage 16 extending to its forward end and to the periphery of the collar 15, and a fluid conducting pipe or tube 17 is connected to the collar 15 to communicate with the passage 16 whereby to supply a solution or fluid of suitable sort into and through the device for douching. The wire or conductor of the coil 2 is insulated by means of shellac or otherwise, to protect it from the liquid, and the coil when wound is also preferably dipped in shellac or otherwise treated. The disk 5 is provided with an annular series of apertures 18 near its periphery for the flow of the liquid therethrough and the adjacent sides of the disk 5 and annulus 3 are provided with radial ribs 19 for spacing the ends of the coil 2 therefrom, in order that the wires will not stop up or close the passage 16 and apertures 18. The closed distal end of the shell 7 has a central outlet aperture 20 through which the liquid is discharged. The tube or pipe 17 is connected to the proximal end of the device and when the liquid is forced through the device, it flows from the passage 16 through and around the coil 2, thence through the apertures 18 to and out through the apertures 20. The liquid in flowing around the coil will be heated thereby and the coil will not become too warm for comfort.

As illustrated in Fig. 4, the core 1 is provided with a longitudinal bore 16' for the flow of the liquid therethrough, and the screw 6 has an aperture 18'. A liquid supply pipe or tube 17' extends through one

wall of the sleeve 10 and is connected to the proximal end of the core 1 to supply the liquid through the bore 16' and aperture 18' so that it will flow through the aperture 20 in the distal end of the shell 7.

The device can also be used, without the douche attachment generally but with it in exceptional cases, for the treatment of ulcers or sores on ordinary surfaces of the body, and a number of the instruments can be disposed side by side and inclosed in a single casing or covering, or otherwise assembled, whereby the device can be applied over the liver or other part of the body with telling effect.

Having thus described the invention, what is claimed as new is:

An electro-therapeutic rejuvenator embodying a core, a pair of members on the core near the ends thereof, an electrical coil upon the core held between said members, a shell slipped over said coil and one of said members and having one end attached to the other of said members, the other end of the shell having an outlet aperture, said members being provided at one side of the core with liquid apertures for the flow of liquid through the coil between the core and shell, and means for spacing the ends of the coil from said members.

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

CHARLES M. SWINGLE.

Witnesses:

J. A. CONWAY,
T. T. LEWIS.