No. 703,826. Patented July 1, 1902.

J. D. RANDALL, Dec'd.

J. E. RANDALL, Administratrix.

ELECTRIC BATH APPARATUS.

(Application filed Feb. 5, 1901.)

(No Model.)

Fig. 1.

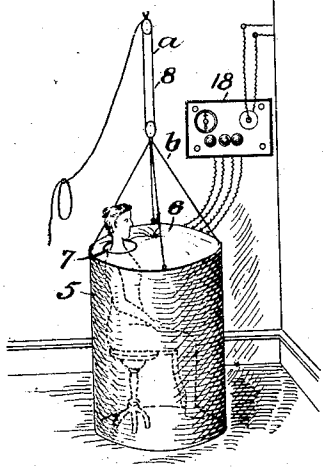


Fig. 2.

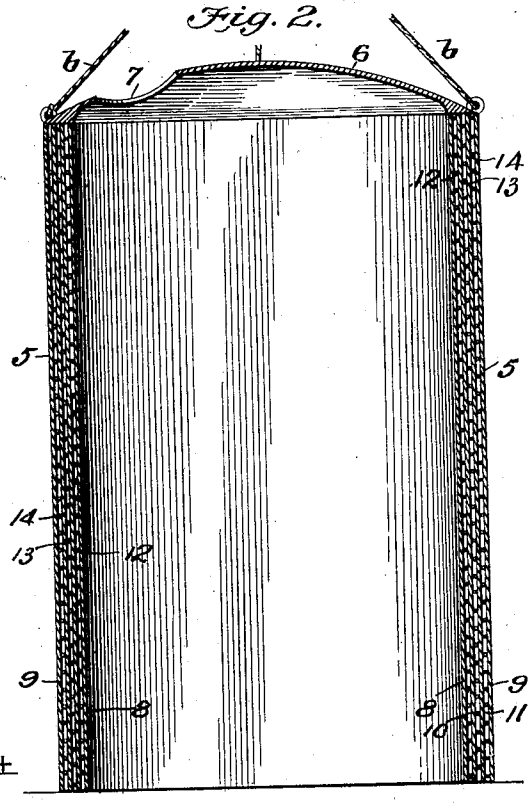


Fig. 4.

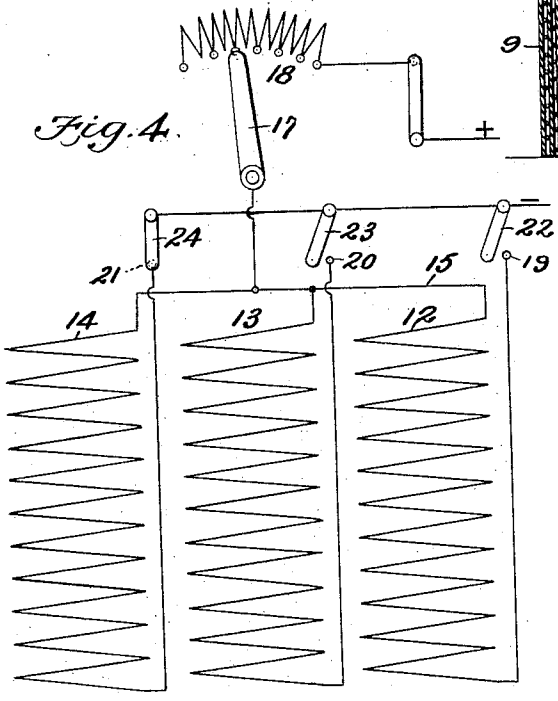
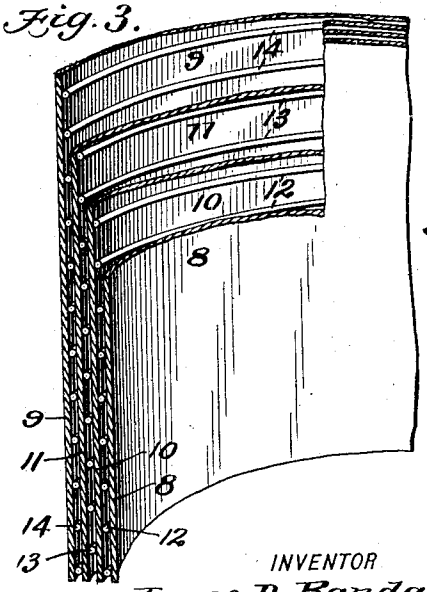


Fig. 3.



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JAMES DENNISON RANDALL, OF MEMPHIS, TENNESSEE, ASSIGNOR OF ONE-HALF TO JOSEPH W. BUCHANAN, OF MEMPHIS, TENNESSEE; JOSEPHINE E. RANDALL ADMINISTRATRIX OF SAID JAMES DENNISON RANDALL, DECEASED.

ELECTRIC BATH APPARATUS.

SPECIFICATION forming part of Letters Patent No. 703,826, dated July 1, 1902.

Application filed February 5, 1901. Serial No. 46,062. (No model.)

To all whom it may concern:

Be it known that I, JAMES DENNISON RANDALL, a citizen of the United States, and a resident of Memphis, in the county of Shelby and State of Tennessee, have invented a new and Improved Electric Bath Apparatus, of which the following is a full, clear, and exact description.

This invention relates to improvements in apparatus or cabinets for giving electrically-heated air-baths to invalids afflicted with various forms of diseases; and the object is to provide an apparatus of this character so arranged that it may be lowered or placed over a person and varying degrees of heat be produced by an electric current.

I will describe the apparatus embodying my invention and then indicate 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 all the figures.

Figure 1 is a perspective view showing the apparatus in use. Fig. 2 is a vertical section of the cabinet. Fig. 3 is a broken view representing a portion of the cabinet and particularly illustrating the arrangement of the conductors between the walls. Fig. 4 is a diagrammatic view of the electric circuit.

The apparatus comprises a cabinet 5 of any suitable shape and dimensions. It is here shown as a rigid cylindrical body open at the bottom and having a top closure 6, provided with an opening 7, through which a person's head may pass. The cabinet is raised and lowered, as here shown, by tackle *a*, connected with ropes or the like *b*, attached to the upper end of the cabinet. The cabinet is formed of a suitable non-combustible and electric insulating material—such, for instance, as asbestos—arranged on a suitable frame. It has inner and outer walls 8 9 and intermediate walls 10 11. Between the walls 8 and 10 is arranged an electric conductor 12. Between the walls 10 and 11 is another electric conductor 13, and between the walls 11 and 9 is a third conductor 14. These several conductors are helically wound around the cabinet from the top to the bottom and, as indicated, are insulated one from another by means of the parallel walls of the cylinder. The conductors may consist of wire or of flat metal strips.

The several conductors are of equal resistance, and one terminal of each conductor is connected to a wire 15, (see Fig. 4,) which has a connection 16 with a switch 17, operating over a rheostat 18, arranged in the circuit leading from any desired source of electricity. The other terminals of the conductors connect, respectively, with contact-points 19, 20, and 21, adapted for connection with the several switches 22, 23, and 24, having connection with the other line-wire. The several conductors extend from the cabinet to the fixed switchboard, as shown in Fig. 1.

In operation the current may be regulated by the rheostat, and should it be desired to heat but one of the conductors its switch only will be closed. For instance, in closing the switch 22 the current will pass through the inner conductor 12, which will provide a certain degree of heat. Should a greater heat be desired, the switch 23 is to be closed, and should a still greater heat be desired the switch 24 will also be closed, and therefore the current will be divided and pass through the several helical conductors.

While I have shown but three helical conductors, it is obvious that a greater number may be employed.

An advantage of this apparatus is that there are no liquids used, and the only moisture produced on a person seated within the cabinet must come from the body, and this of itself is beneficial. Another advantage is that a patient is placed in an electric field surrounded by an electrical atmosphere, and when thus placed the wires become heated from the electric current, which heats the air in the cabinet until the patient perspires freely.

The slack wires extending between the switch apparatus and the cylinder 5 allow the latter to be raised and lowered as may be required.

The cabinet may be raised slightly when the heat is excessive or too great and the

same thereby reduced to any desired degree. If desired, the free end of the rope may be passed into the cabinet through the top opening thereof, and the party being treated may thus easily raise the cabinet to allow entrance of cool air.

When the cabinet is not required for use, it is hoisted and suspended out of the way by means of the tackle *a*.

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

1. An electric bath apparatus, comprising a cabinet open at the bottom and having a top closure provided with an opening, a plurality of electroheating helices arranged around the cabinet concentrically and insulated one from another, the several conductors having each one terminal connected to a wire adapted for connection with an electric line-wire, and switches for closing the other line-wire with the other terminals of the conductors.

2. An electric bath apparatus, comprising a rigid barrel-like body which is open at the bottom, to allow it to be placed over a patient, and having a top provided with an opening for the head of the patient, a plurality of electric heating helices arranged around such body concentrically and insulated one from another in the body of the same and having each one terminal connected to a wire adapted for connection with an electric line-wire, and a switch for closing the other line-wire with the other terminal, the conductors being slack as shown and described.

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