Oct. 15, 1929. J. ROBINSON 1,731,504

ELECTRO THERMOCHEMICAL APPLIANCE FOR TREATING THE SCALP

Filed May 24, 1927

Fig. 1.

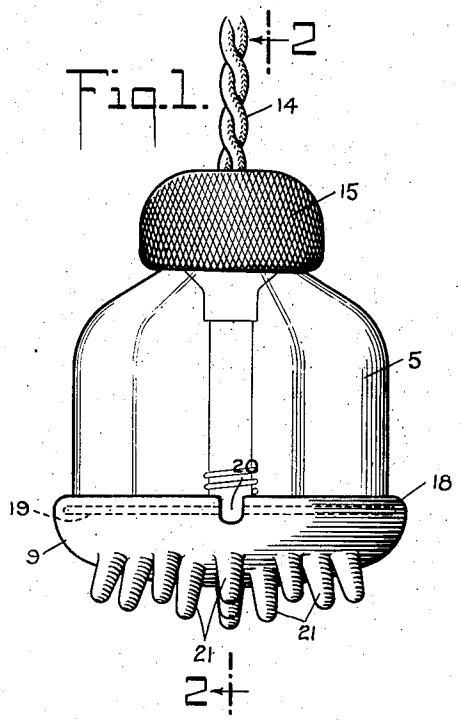


Fig. 2.

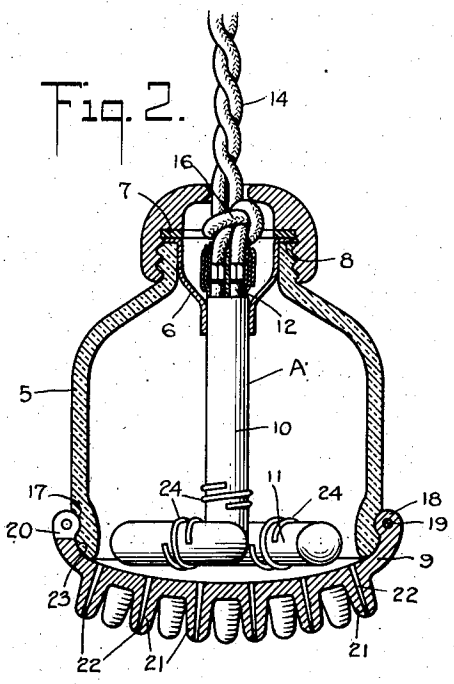
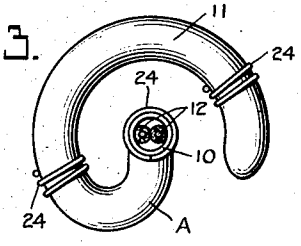


Fig. 3.



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UNITED STATES PATENT OFFICE

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ELECTROTHERMOCHEMICAL APPLIANCE FOR TREATING THE SCALP

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My invention relates to electrothermochemical appliances for the beneficial treatment of the scalp, and particularly those scalp disorders which cause falling hair, dandruff and baldness, and the object is to provide a simple device adapted especially for home use by which any desired medicament of a liquid or similar character can be conveniently applied to the scalp under induced conditions that are most favorable for the beneficial action of the tonic applied. As is generally known falling hair and dandruff are largely due to a dry scalp condition brought about by poor blood circulation in the scalp or closing of the scalp pores. A scalp in this condition is found under the microscope to be covered, at the points of abnormal state, with a sort of a thin dry crust of almost lifeless skin. The application in the usual manner of known tonics to a scalp condition of this sort fails to produce the most satisfactory results for the reason that the tonic applied is cold and does not warm or soften this crust so as to penetrate or remove it, nor open the poores of the scalp so that the tonic may go directly to the roots of the hair. With my invention these advantageous features are secured, and at the same time a stimulating massaging effect of the scalp is obtained.

In the drawings Figure 1 is a side elevation of my invention.

Figure 2 is a sectional side elevation of my invention, and

Figure 3 is a plan view of the heating element used with my invention. In this view the electric cord is removed.

My invention consists of a simple hollow container 5 made of any suitable material, preferably glass, of size and shape to be conveniently held in the palm of the hand. The container has at its upper end a neck provided with threads, or other suitable locking device, suitably formed on the container or carried thereby. Within the neck I provide a thimble or bushing 6 having a flange 7 which fits on top of the neck, a suitable gasket 8 being provided between the flange and the face of the neck to make a fluid tight joint. The lower end of the container is open until closed by the cap 9. I pass upwardly into the container from the bottom thereof, and through the sleeve or thimble 6 a suitable heating element A, the connection between the element and the thimble being fluid tight. The heating element consists of a suitable seamless tube 10 having a curved or coiled base 11 and a centrally disposed vertical extending shank, as shown. Within this tube is mounted a suitable resistance coil 12 constructed in any desired manner as by winding a wire of the proper material and weight around a core made of asbestos, or other low-heat conducting material, and covering the coil with a similar material. The coil extends out of the tube a short distance and is connected to an electric light cord 14 in any suitable manner, as by the conventional terminal connections shown in Figure 2. To lock the thimble 6 in position, and produce, in cooperation with the gasket 8, a fluid tight joint between the thimble and the container, and to relieve the heating coil 12 of any strains which may be applied to the cord, I provide a nut or cap 15, of suitable material, which is rigidly secured to the container by means of the threads or other securing means previously described. This cap engages the knot 16 tied in the lower end of the electric cord 14 in such a way as to prevent any strains occurring on the resistance coil in case the user of my invention pulls on the cord.

Near the lower end of the container a suitably shaped annular groove or recess 17 is provided, and into this I snap the beaded or ribbed portion 18 of the rubber cap or cover 9, which has sufficient tension to insure that the curved joint 23 between the cap and the container is firm and fluid tight. The ribbed portion mentioned is provided at about its center with a snap ring 19 and the cap is cut away at 20—Figure 1 to permit the ring to spread more easily in removing and applying the cap. While the cap or cover 9 may be made of any suitable material it is preferably constructed of a good grade of rubber of high heat resisting and high elastic quality and is provided on its outer face with a plu-

rality of nipples or ducts 21 each of which is provided with an opening 22 therethrough.

As appears in Figure 2 the lower coiled end 11 of the heating element lies just above the inner face of the cap 9. With this arrangement the cap is quickly heated; and the act of rubbing the scalp with my invention draws the cap into tighter engagement with the flared face 23 of the container and presses it up against the base 11 which then acts as a stop for the cap, and also effectively heats it.

In operation my invention is assembled in the manner described, and before putting the cap 9 in place the container 5 is filled to the desired extent with the tonic which it is desired to apply. The cap is then snapped into position and the electricity turned on. When the instrument has been allowed to heat a minute or two it is applied to the scalp with a rubbing movement during which operation the warm medicament in the container passes through the nipples 21, and inasmuch as the scalp has been properly warmed, and the pores in consequence opened, the tonic quickly disappears into the scalp. With my invention the tonic is, so to speak, poured into the pores of the scalp and reaches the roots of the hair almost immediately.

The cap 9 in cooperation with the lower end 11 of the heating element A may be said to constitute a flexible warming pad or covering for warming and preparing the scalp for the beneficial application of a desired tonic. Where electricity is not available my invention may, of course, be used without the heating element A, in which case the cap 9 will not be hot, and in this form it produces a convenient and effective means for applying a cold tonic, but the results of this treatment are not nearly so satisfactory as, and are not at all comparable with, the benefits derived from the electrothermochemical treatment my invention is produced to give.

What I claim is:

1. An electrothermochemical appliance for the treatment of scalp disorders, comprising a hollow container adapted to contain a tonic, a heating element suitably mounted in said container so as to extend into and heat said tonic, and a resilient cover closing the lower end of said container and adapted to be heated by said tonic and said heating element, said cover being provided with a plurality of nipples for massaging or stimulating the scalp, and a plurality of escape passages.

2. An electrothermochemical appliance for the treatment of scalp disorders, comprising in combination a container adapted to receive a suitable compound therein, a heating element supported by the upper end of said container and extending downwardly into the container and into said compound, the lower end of said element being of considerable width and lying approximately flush with the lower end of the container, and a flexible warming cover closing the lower end of the container and adapted to warm the scalp on application thereto and to deliver said compound to the scalp.

3. An electrothermochemical appliance for the treatment of scalp disorders, comprising in combination a hollow container adapted to receive therein a tonic to be warmed and applied to the scalp, a thimble in the upper end of said container, a heating element supported on said thimble for heating said tonic, said element having a coiled lower end which lies in a horizontal plane near the lower end of the container, a nut for rigidly securing said thimble and said heating element in place, and a flexible warming cover for the lower end of said container and secured thereto and adapted to be moved upwardly into contact with said heating element as said container is moved on the scalp.

4. An electrothermochemical appliance for the treatment of scalp disorders, comprising in combination a hollow container adapted to receive therein a tonic to be applied and provided at its lower end with a groove, an electric heating element suitably mounted in said container, and a resilient cover lapped over the lower end of the container and yieldable inwardly of the container relative to the heating element, said cover having a bead adapted to firmly fit in said groove to removably secure the cover to the container in a fluid tight manner, said cover being also provided with a plurality of perforated nipples through which said tonic passes into the pores of the scalp when the scalp is warmed by said appliance.

5. An electrothermochemical appliance for the treatment of scalp disorders, comprising in combination a hollow container adapted to receve therein a tonic to be applied, the container being provided at its lower end with a groove, an electric heating element suitably mounted in said container, a resilient cover lapped over the lower end of the container, said cover having a bead adapted to firmly fit in said groove, said bead being reinforced with a resilient snap ring, and a plurality of perforated nipples on said cover through which said tonic is adapted to pass.

6. An electrothermochemical appliance for the treatment of scalp disorders, comprising in combination a hollow container adapted to receive therein a tonic to be applied, the container being provided at its lower end with a groove, an electric heating element suitably mounted in said container and terminating at its lower end in an enlarged head or base lying near the bottom of said container, said heating element including a seamless tube having mounted therein a suitable resistance coil, and a resilient cover for said container secured in said groove and provided with a

plurality of perforated nipples through which said tonic is adapted to pass during the act of massaging the scalp, said cover being adapted during said act to be pressed into contact with the lower end of said heating element for the purpose of augmenting the heating effect thereon of said element.

7. A body treatment device of the class described comprising a fluid container having at one end a body rubbing surface and at its other end an opening, a heating element disposed within the container, closure means for said opening, and supporting means cooperative with the closure means for fixedly holding the heating element in fixed relation to the walls of the container when said closure means is connected to the latter and permitting displacement of the element when disconnected from the container.

8. A body treatment appliance of the class described comprising a container adapted to receive a liquid and having at one end a body rubbing surface and at its other end an opening, a heating element disposed within the container, a closure cap having threaded connection with the container at said opening, and a supporting member for said heating element fixedly held by said cap at the opening and constituting means for preventing escape of the liquid through said opening.

In testimony whereof I hereunto affix my signature.

JOSEPH ROBINSON.