Feb. 18, 1941. A. A. DOTY 2,232,218

IMPLEMENT FOR TREATING THE SCALP AND HAIR

Filed Sept. 11, 1939

Fig. 1.

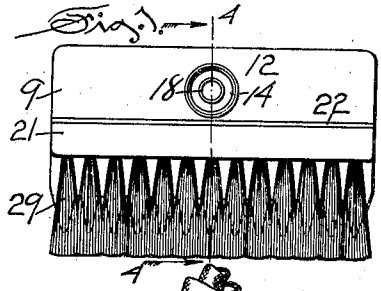


Fig. 2.

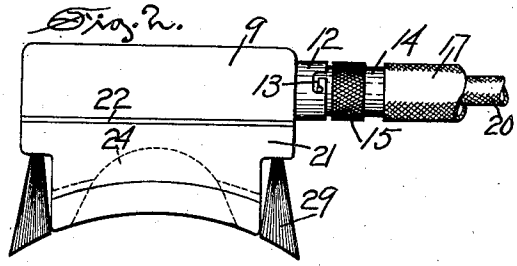


Fig. 3.

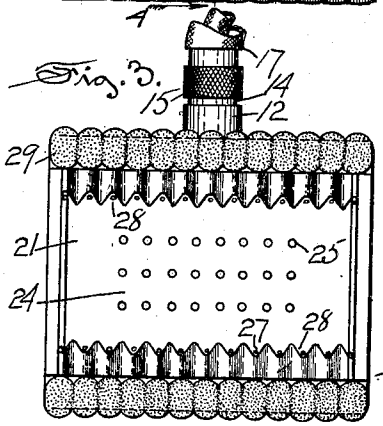


Fig. 4.

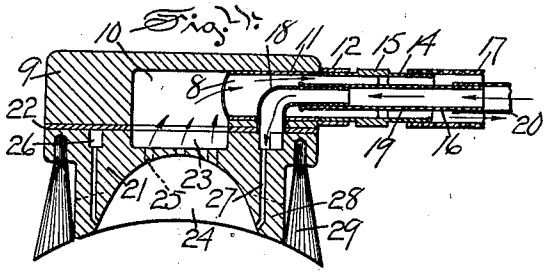


Fig. 5.

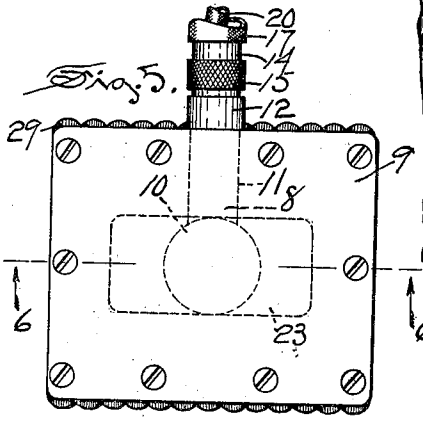


Fig. 6.

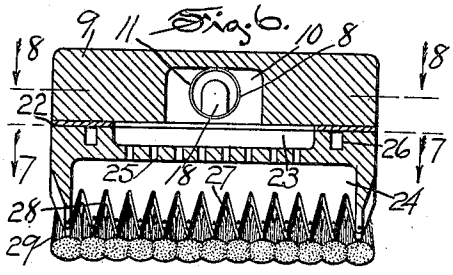


Fig. 7.

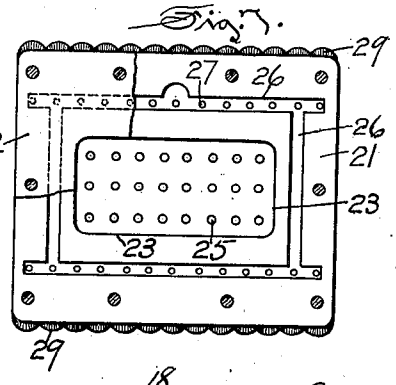


Fig. 8.

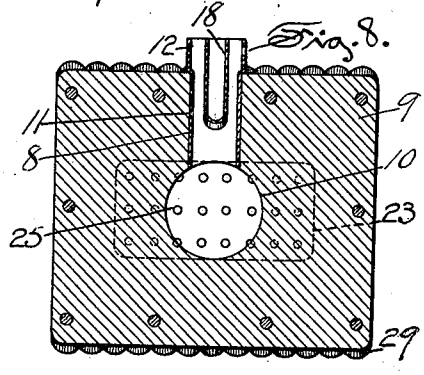
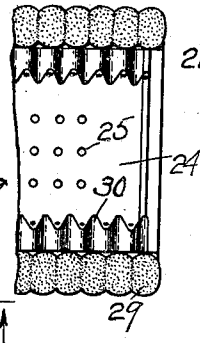


Fig. 9.



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IMPLEMENT FOR TREATING THE SCALP AND HAIR

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Application September 11, 1939, Serial No. 294,282

7 Claims. (Cl. 128—65)

My invention relates to the class of devices that are employed for treating the scalp and hair to provide a massaging action thereon and also to remove dandruff, and an object of my invention, among others, is the production of a device of this class by means of which the scalp may be effectively treated and in the use of which beneficial results may be obtained.

One form of a device embodying my invention and in the construction and use of which the objects herein set out, as well as others, may be attained is illustrated in the accompanying drawing, in which—

Figure 1 is an end view of my improved scalp treating implement.

Figure 2 is a side view of the same.

Figure 3 is a bottom view.

Figure 4 is a view in section on a plane denoted by the dotted line 4—4 of Fig. 1.

Figure 5 is a top plan view.

Figure 6 is a view in section on a plane denoted by the dotted line 6—6 of Fig. 5.

Figure 7 is a view in section on a plane denoted by the dotted line 7—7 of Fig. 6, with the gasket partially broken away to show construction.

Figure 8 is a view in section on a plane denoted by the dotted line 8—8 of Fig. 6.

Figure 9 is a detail bottom view of a fragment of a brush illustrating a modification.

In the accompanying drawing the numeral 9 denotes the head of my improved scalp treating implement which may be of any desired shape and composed of any suitable material, preferably some composition of matter. As herein shown this is of rectangular shape when viewed in plan. A chamber 10 is formed in the head, as shown in Fig. 4 of the drawing, and an opening 11 extends rearwardly from said chamber, opening out at the rear side of the implement. A tube 8 terminating in an enlarged end or collar 12 is secured within the opening 11 and projects from the back edge of the head 9, this collar having a bayonet slot 13 for the reception of a pin projecting from the side of a sleeve 14 having a knurled enlargement 15 by means of which the sleeve may be turned to engage said pin in the bayonet slot or disengage it therefrom.

The outer end of the sleeve comprises a nipple 16 to which a flexible tube 17 may be secured. A hole is formed in the bottom side of the tube 8 near its inner end, said hole registering with a hole laterally extending from the opening 11, as shown in Fig. 4. An elbow 18 is secured within said holes and projects along the tube 8 at about the axial center thereof. An extension 19 is loosely fitted to the end of the elbow and is adapted to receive a flexible tube 20 projecting within the tube 17 at about the axial center thereof. In fact the tubes 17 and 20 may comprise a single structure if desired.

An applicator 21 is secured to the bottom face of the head 9 in any suitable manner, a gasket 22 being interposed between the head and the applicator as shown in Fig. 4. A recess 23 preferably of rectangular shape is formed in the top of the applicator, as shown in Figs. 4, 6, and 7, said recess registering with the chamber 10, the latter of which is located substantially in the center of said recess. Another recess 24 is formed in the bottom of the applicator, the side walls of this recess preferably tapering from a wider dimension at the mouth of the recess to a narrower dimension at the bottom. Holes 25 open from the bottom of this recess into the recess 23 and into the chamber 10.

A groove 26 is formed in the top of the applicator, extending around the recess 25 at a distance therefrom, as shown in Fig. 7, and passages 27 extend from said groove downwardly. Teeth 28 are formed on opposite sides of the recess 24, and the passages 27 open through said teeth near the outer ends thereof, as shown in Figs. 4 and 6. Tufts 29 of bristles are secured within holes in an overhanging ledge on opposite sides of the applicator in the top thereof, these tufts constituting a brush structure located flush with the outer ends of the teeth 28.

In use the tube 20 is secured to a source of air supply under some pressure and the tube 17 may be connected with a suction device, and the applicator being applied to the scalp and rubbed thereover, a volume of air through the passages 27 will be applied to the hair and scalp. The rubbing action of the applicator will wrinkle the scalp more or less. The teeth 28 aided by the brush 29 will loosen any dandruff from the scalp and suction through the tube 17 will remove such dandruff. It will be found that the massaging action of the teeth, which in fact comprises a comb, upon the hair and scalp together with the brush will produce beneficial results from a massaging standpoint and the device as a whole is of a most satisfactory character from the beneficial results gained by its use.

My improved implement may be used with various kinds of fluids although air has been specifically mentioned, and the direction of flow of fluid currents may be varied as desired and it will be obvious that the fluid may be employed for administering medicaments to the scalp if

desired. The curved shape of the bottom of the recess **24**, when suction is employed in said recess, will tend to impart a curling effect to the hair, and when warm air is employed the hair may be quickly dried. The diagonal arrangement of the outlets of the passages **27** into the recess **24** delivers the air at an angle to the roots of the hair, and this pressure will tend to impart a vibrating movement to the scalp creating wrinkles thereof in addition to that obtained by the rubbing action of the teeth of the comb. This delivery of the air currents at an angle to the hairs avoids a direct application to the hair roots which conceivably might result in injury to such roots. The staggered arrangement of such teeth enables practically the whole surface of the scalp to be covered in the rubbing action, this arrangement in effect providing a double comb. The ends of the recess **24** in effect each constitutes a broad curved tooth to conform more or less to the surface of the scalp, and the bristles act as a guard to prevent free exit of air from the recess under the edges thereof and thereby cause it to pass upwardly through the holes **25**.

The modification shown in Fig. 9 is the same as that shown in the preceding figures with the exception that the teeth **30** on opposite sides of the recess **24** are staggered relatively to each other.

In accordance with the provisions of the patent statutes I have described the principles of operation of my invention, together with the device which I now consider to represent the best embodiment thereof; but I desire to have it understood that the device shown is only illustrative and that the invention may be carried out by other means and applied to uses other than those above set out.

I claim:

1. A massaging implement including a body having a chamber therein with a passage communicating therewith for flow of air, said body having an oblong recess with a closed wall and a dome shaped bottom, forming a partition between said chamber and recess, the latter also having ends with curved edges forming broad teeth, the whole constituting a concaved bottom with an opening therefrom into said chamber, said body also having other passages extending depthwise through the walls of said oblong recess and communicating with said concavity, and means for attachment of a tube to said body for flow of air in opposite directions through said opening and passage.

2. A massaging implement including a body having a chamber therein with a passage communicating therewith for flow of air, said body having a dome shaped recess constituting a concaved bottom with an opening therefrom into said chamber, passages extending depthwise through the walls of said recess and opening thereinto at the lower edge thereof, means for attachment of a tube to said body for flow of air in one direction relative to said body through said chamber and concavity, rectangularly shaped groove into which said passages open in said body and means for attachment of a second tube for flow of air in an opposite direction relative to said body through said rectangularly shaped groove and passages.

3. A massaging implement including a body having a chamber therein with a passage communicating therewith for flow of air, said body having a dome shaped recess constituting a concaved bottom forming a partition between said chamber and recess with closed side walls for said recess and with an opening therethrough into said chamber, the edges of said walls being serrated to form a set of teeth bounding said concavity and having passages therein communicating with said concavity and opening at the massaging ends of said teeth, a tube attached to said body for flow of air through said chamber, and a tube connected to said body for flow of air through said passages.

4. A massaging implement including a body having a chamber therein with a passage communicating therewith for flow of air, said body having a dome shaped recess constituting a concaved bottom with closed side walls and with an opening therefrom into said chamber, the edges of said walls being serrated to form a set of teeth bounding said concavity and having passages communicating with said concavity and opening at the massaging ends of said teeth to deliver air at an angle to the surface to be treated, a set of brushes surrounding said teeth, a tube attached to said body for flow of air through said chamber, and a tube attached to said body for flow of air through said passages.

5. A massaging implement including a head having a chamber therein, an applicator having a recess registering with said chamber, said recess extending beyond the boundaries of the chamber on opposite sides thereof, said applicator having a dome shaped recess constituting a concaved bottom with a series of holes opening therefrom into said recess, a set of teeth bounding said concavity and having passages communicating therewith, a tube attached to said body for communication with said chamber and recess, a second tube attached to said body for communication with said passages, and means for attachment of said applicator to said head.

6. A massaging implement including a head having a chamber therein, an applicator having a recess registering with said chamber and also having a dome shaped recess constituting a concaved bottom and a groove opening against said head with holes from said concavity into said recess, a set of teeth bounding said concavity and having passages communicating with said groove, a tube attached to said head and communicating with said chamber, a tube attached to said head and communicating with said groove, and means for securing the applicator to the head.

7. A massaging implement including a head having a chamber therein, an applicator having a recess registering with said chamber and also having a dome shaped recess constituting a concaved bottom and a groove surrounding said recess and holes opening from said concavity into said recess, a set of teeth bounding said concavity and having passages communicating therewith, a tube attached to said head and communicating with said chamber, a second tube extending through the first mentioned tube and communicating with said groove, and means for attaching said applicator to said head.

ARTHUR A. DOTY.