

July 26, 1927.

1,637,035

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APPARATUS FOR TREATING THE HAIR AND SCALP

Filed March 12, 1927

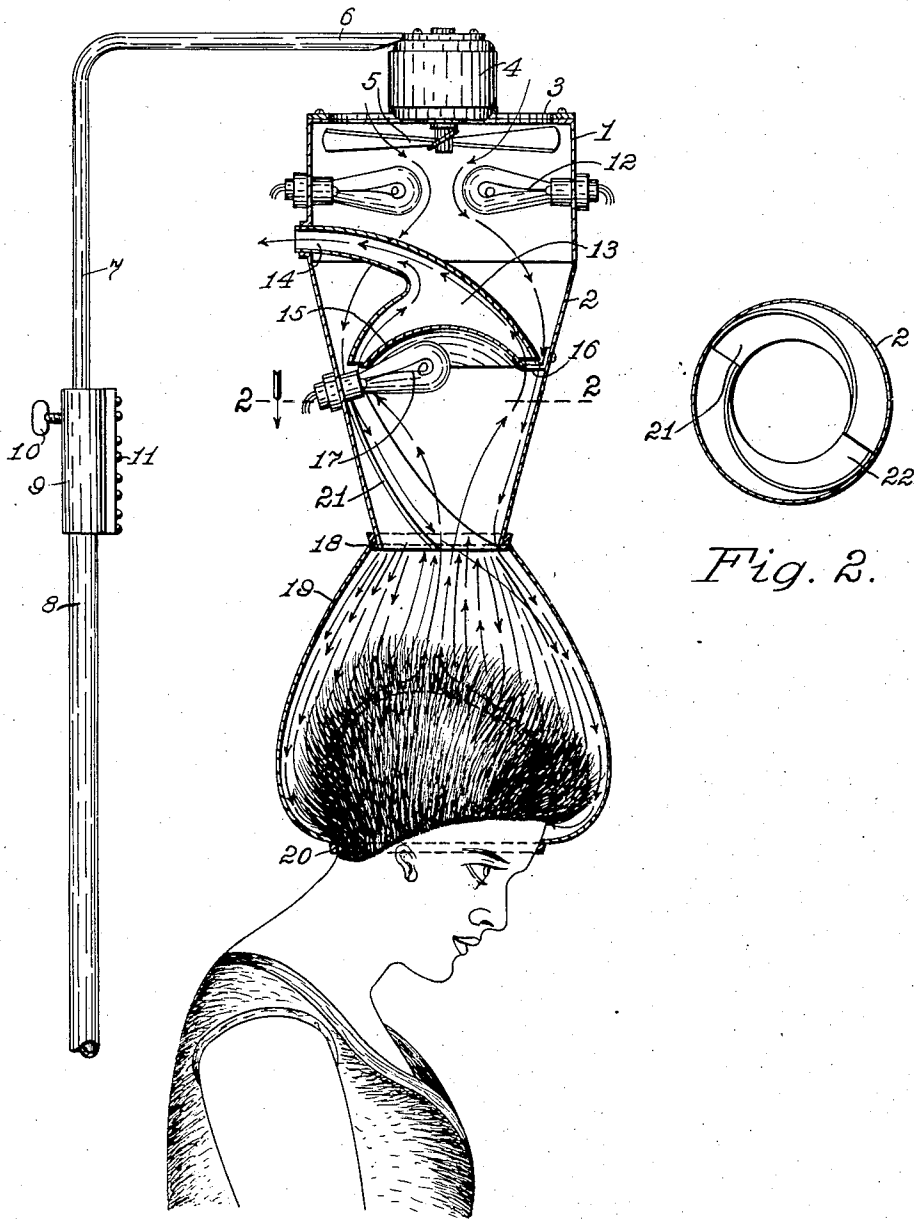


Fig. 1.

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APPARATUS FOR TREATING THE HAIR AND SCALP.

Application filed March 12, 1927. Serial No. 174,877.

My invention relates to apparatus for treating the hair and scalp, and the object of my improvement is to provide apparatus for warming and drying the hair and scalp, adapted to treat the entire scalp at one operation and to dry the hair in a minimum length of time.

This object I have accomplished by the means which are hereinafter described and claimed, and which are illustrated in the accompanying drawings, in which Fig. 1 is a vertical central section of my improved apparatus with parts in side elevation, or broken away, and Fig. 2 is a horizontal section of the funnel-form air conduit taken on the broken line 2—2 of said Fig. 1 and looking downwardly as indicated by the arrow.

It is to be understood that various modifications of the apparatus shown may be used while still remaining within the scope of my invention and the protection of the claims hereof.

My said apparatus is designed for employment in "beauty parlors," barber shops, or by individual users.

The apparatus comprises a hollow chamber 1 whose lower part 2 is downwardly coned, both ends of the chamber 1—2 being open, the lower end having an outer circumferential flange 18. The upper end of the chamber has an inturned annular flange on which is fastened bars 3, preferably curved and to which a small electric motor 4 is secured coaxially with the chamber. On the depending short motor shaft in said chamber are fan vanes 5. The numeral 6 denotes a horizontal part of a vertically disposed cylindrical standard 7 whose lower part is slidably seated in the upper hollow part of a standard 8, and the latter may be relatively fixed, as supported upon any kind of base, whether fixed or adapted to be shifted from one location to another, not shown. A sleeve 9 mounted on the standard 8 is with said standard 8 apertured in line with an interiorly threaded hole to receive a wing-screw 10 which serves as a set-screw to engage terminally the standard part 7 to hold it in a desired height of elevation.

A pair of electric lamps 12 are mounted in the upper cylindrical part 1 of said chamber immediately below the fan 5. A downwardly concaved reflector 15 is supported on an inner bracket 16 on the inner wall of the coned part 2 of said chamber about midway of said coned part and having its circum-

ferential edge spaced concentrically from the inner wall of said coned part. An electric lamp 17 is mounted within said coned part 2 immediately below said reflector 15, and a downwardly concaved body 13 is mounted in the chamber immediately above said reflector, a little wider than the reflector, and also having its circumferential edge spaced from the inner wall of the coned part 2. This body 13 has a hollow pipe 14 leading from its hollow through a side of the cylindrical part 1 of said chamber.

The numeral 19 denotes an open ended hollow air chamber preferably made of some flexible and relatively air impervious material such as rubberized cloth, and whose opposite upper and lower open ends have annular elastic insertions, such as denoted by the parts 20. The upper elastic ring 20 may be releasably mounted around the lower flange 18 of said chamber 1—2. The lower elastic ring 20 may encircle elastically the head of a person to be treated so as to inclose the entire hair and scalp within the air chamber 19.

Referring to Fig. 2, the numerals 21 and 22 denote spiral segments of plates which are mounted along the inner wall of the chamber part 2 to terminate below at the lower opening of the part 2, the upper parts of said plates being wider than the lower.

The rotating fan 5, and also the lamps 12 and 15 are controlled by means of switches 11 set in the sleeve 9.

Air driven centrally downwardly by the fan, is preheated by the upper lamps 12, then impinges upon the convexity of the depending hollow body 13 and diverted laterally around the latter to pass downwardly through the coned chamber part 2 close to its inner wall. The air then, in passing against the spiral plates 21 and 22 downwardly, is given by said plates a swirling motion or direction which causes the air to move closely along the inner coned parts of the chamber part 2 and be delivered into the air chamber 19 with the same rotatory movement to likewise move along the inner wall of said chamber 19 spirally until it impinges upon the circumferential margin of the scalp of the person treated. The arrows show the directions taken by said air current in passing both downwardly through the chamber 19, and when returned centrally upwardly through the chamber after thoroughly bathing the scalp and penetrat-

ing the hair. This causes the air to impinge upon the scalp throughout at abrupt angles below and from thence upwardly in penetrating currents over the scalp and through the hair, rapidly drying all the scalp and hair. The drying process is expedited by the heat rays from the lower lamp 17 reflected downwardly by the concave reflector 15, and which rays affect all parts of the scalp and hair. Air returning upwardly through the central spaces of the chambers 19 and 1-2, is received by the depending bell part 13 and discharged into the atmosphere by way of the pipe 14.

The air driven thus into the flexible chamber 19 accumulates more rapidly than it is discharged by the discharge device 13-14, and baffled thereby, any excess of escaping air passing upwardly through the open upper end of the chamber part 1. The air in the chamber 19 is thus compressed considerably above atmospheric pressure, which causes the air to move quickly and effectively swathe and penetrate to the roots of the hair and keep the individual hairs spread and radiating from the scalp while drying.

This results in a large saving in time and labor in the operation of the apparatus.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is:

1. In a device of the character described, an open ended chamber, means within said chamber for creating a spirally progressive current of air while passing under pressure therethrough abutting the inner wall thereof, a hollow open ended flexible chamber having one open end closely mounted upon the open delivery end of the first-mentioned chamber, and means for closely adjustingly fitting the other open end of the second-mentioned chamber around the head of a person to inclose the scalp within it, and whereby the second-mentioned chamber is inflated with air under greater than atmospheric pressure.

2. In a device of the character described, an open ended chamber, means within said chamber for creating a spirally progressive current of air therethrough abutting the inner wall thereof when air is forced through the chamber under pressure, a flexible open ended hollow body having one open end mounted about the open delivery end of said chamber sealingly, means for elastically fitting and securing releasably the other open end of said hollow body around the head

of a person to inclose the scalp thereof within said body, and heating means within said chamber to preheat the air passing there-through into said hollow body, the air entering said body inflating it and becoming compressed above the pressure of the atmosphere.

3. In a device of the character described, an open ended chamber, means within said chamber for impressing a spiral movement upon air forced under pressure through the chamber to cause the air to move along the inner wall of the chamber spirally progressively, an open ended flexible air impervious hollow body having one open end sealed removably upon the open delivery end of said chamber and having at its opposite end an annular elastic element for adjustingly securing it around the head of a wearer to inclose the scalp within said body, means within said chamber for preheating air passing through it into said hollow body, a concave reflector mounted in said chamber, and other heating means apposed to the concave face of the reflector whereby the reflector directs reflected heat rays through said hollow body upon the entire scalp of the person treated.

4. In a device of the character described, an open ended chamber, means for driving a current of air therethrough, the delivery part of the chamber being conical, a flexible open ended body having one end removably elastically fitted upon the coned delivery end of said chamber, and having its other open end provided with an annular elastic element to hold it releasably upon and around the head of a person treated, means mounted within said chamber shaped to impress a progressive spiral movement on air passing through it and through said body, heating means within said chamber for heating air passing through it, a reflector within said chamber and heating means apposed to the reflecting surface of the reflector to direct heat rays through said body upon the whole surface of the scalp of the person treated, and a hollow discharge device having an enlarged bell end within the chamber near and of greater diameter than said reflector, and having a tubular part traversing the wall of the chamber to vent the returning air from said hollow body, whereby the air in said hollow body is kept at a pressure greater than atmospheric pressure.

In testimony whereof I affix my signature.

JAMES C. CASEY.