March 29, 1932. H. L. J. MARSHALL 1,851,859

COMB

Filed Dec. 26, 1930

FIG. 1.

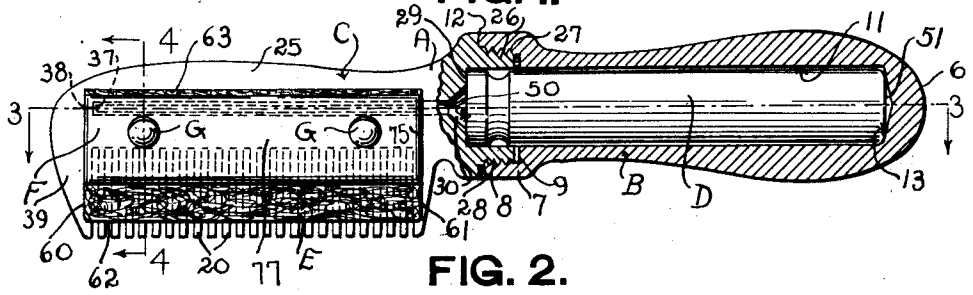


FIG. 2.

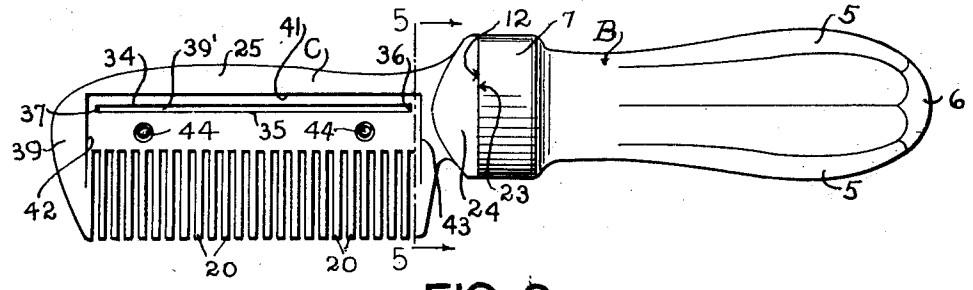


FIG. 3.

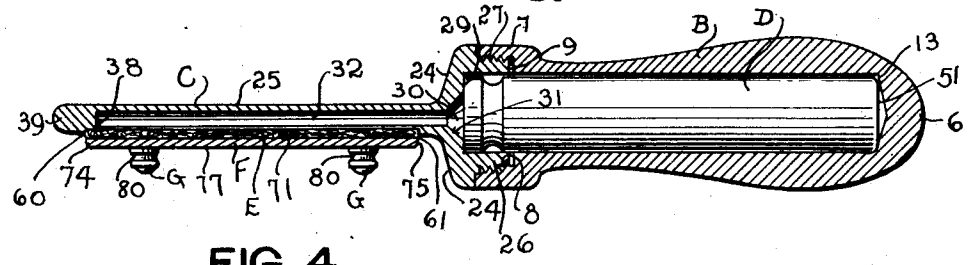


FIG. 4.

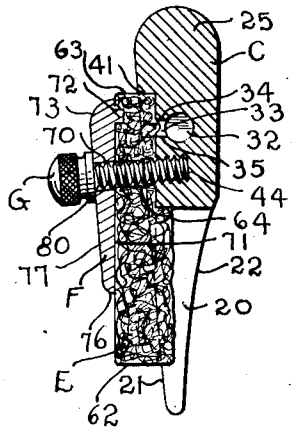
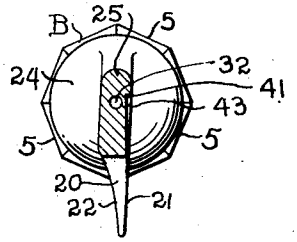


FIG. 5.



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Patented Mar. 29, 1932 1,851,859

UNITED STATES PATENT OFFICE

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COMB

Application filed December 26, 1930. Serial No. 504,947.

This invention relates to improvements in devices for treating the hair and skin and more particularly to improvements over what is disclosed in my co-pending application, filed May 8, 1930, Serial Number 450,804.

The primary object of the invention is to provide an improved comb for applying a solution to the hair or hair and skin thru the operation of combing the hair.

A further object of the invention is to provide an improved comb adapted to be used for straightening the hair thru the deposition of a solution contained within a chamber provided in the comb; my present invention differing from my prior one in that I provide a detachable comb handle adapted to receive a solution, which may be either poured therein, or contained in a suitable magazine placed therein.

Another object resides in the novel construction whereby feeding of the solution to be applied to the hair is brought about thru capillary attraction, and prevented from escaping where not required, thus maintaining an even escape of the solution without requiring valves or other fluid control means to be operated by the user.

A still further object resides in the novel arrangement whereby the solution applicator is readily and easily removable from the comb proper to permit ready and thorough cleansing of the device, and so that the comb may be used without the applicator.

Among the improvements over my co-pending application, referred to above, are novel means for positioning the solution applicator pad on the comb body and novel means for retaining the magazine within the comb handle.

Other objects and advantages of the invention will be apparent during the course of the following detailed description, taken in connection with the accompanying drawings forming a part of this specification and in which drawings:

Figure 1 is a side elevation of the improved comb, portions being broken away for the purpose of illustrating certain details of construction.

Figure 2 is a view in side elevation showing the solution applicator removed.

Figure 3 is a sectional view on the line 3—3 of Figure 1.

Figure 4 is an enlarged sectional view on the line 4—4 of Figure 1.

Figure 5 is a sectional view on the line 5—5 of Figure 2.

In the drawings, wherein for the purpose of illustration only a preferred embodiment of the invention is shown, A designates a hollow body, which may comprise a hollow handle portion B, and a hollow comb portion C; D a magazine or vial for insertion within the hollow handle portion; E an absorbent pad; F a retaining plate for said pad; and G retaining means for said plate.

Referring first to the hollow handle portion B the same is preferably fluted as at 5 and outwardly shaped so as to provide a good gripping surface for the hand of the user, the closed end of the handle portion is preferably rounded as at 6, while the opposite end of the handle portion comprises a sleeve portion 7, internally screw threaded as at 8 and provided with an annular shoulder 9. The hollow within the handle portion B forms a liquid receiving or magazine receiving chamber 11, preferably of circular cross section. This chamber 11 extends from the open end 12 of the handle portion B almost the entire depth of the handle, ending in an end wall or abutment 13. This chamber 11 may receive the solution, which may be poured therein or the solution may be contained within the magazine or vial D and after one end of the magazine or vial has been opened it may be inserted bodily into the chamber 11.

The hollow comb portion C is preferably narrow in cross section, as shown in Figures

3, 4, and 5, and provided with teeth 20, with their faces curved as at 21 and 22. However, the open end 23 of the comb portion C is circular in cross section, being enlarged by curved walls 24 extending from the narrow portion 25. Extending from the open end 23 of the comb portion C is a hollow extension 26, externally screw threaded as at 27 and at the base of this hollow extension is an annular shoulder 28. When the internally screw threaded sleeve portion 7 is threaded upon the externally screw threaded hollow extension 26 the end of the handle portion B abuts against the annular shoulder 28. Within the hollow extension 26 is an annular shoulder 29. Leading from the base of the hollow extension 26, which forms the annular shoulder 29, is an opening 30 having walls 31 preferably converging toward a liquid distributing chamber 32, within the hollow comb portion C. This distributing chamber 32 is preferably circular in cross section and of a diameter much smaller than the diameter of the liquid receiving chamber or magazine receiving chamber 11, but extends nearly the full length of the comb portion C. Extending from the liquid distributing chamber 32 is an elongated eduction way 33 with sides 34 and 35 and ends 36 and 37. The end 38 of the liquid distributing chamber 32 extends nearer the closed end 39 of the comb portion C than does the end 37 of the eduction way 33 and the opening 39′ of the eduction way 33 is preferably less in height than the diameter of the liquid distributing chamber 32 as shown in Figure 4 of the drawings. Along the side 34 of the eduction way 33 is a flange or abutment 41, forming an abrupt downwardly facing shoulder, and extending beyond the ends 36 and 37 of the eduction way 33. Preferably flanges or guides 42 and 43 extend from the flange or abutment along the ends 36 and 37 of the eduction way 33. Extending into the narrow portion 25 of the comb portion C, is one or more threaded sockets 44, for a purpose hereinafter described.

The hollow body A may be of hard rubber, metal or any other suitable material and as to the comb portion C, the narrow portion 25 and teeth 20 are preferably formed as an integral structure.

The magazine or vial D may be of glass, rubber, metal, or other suitable material and has an open end 50 and a closed end 51. When marketed this magazine or vial may have a closure such as a seal or a cork, (not shown in the drawings) at its open end, which closure the user removes and then inserts the magazine or vial into the magazine receiving chamber 11 of the handle portion B, so that the closed end 51 of the magazine or vial comes into contact with the end wall or abutment 13 of the handle portion B. This magazine or vial will have a diameter slightly smaller than the diameter of the magazine receiving chamber 11. When the magazine or vial D is inserted within the handle portion B, the comb portion C may be attached by screwing the handle portion upon the comb portion C until the open end 50 of the magazine or vial D comes into contact with the annular shoulder 29 so that the magazine or vial is held securely within the magazine receiving chamber 11. However, means other than the internally screw threaded sleeve portion 7 and the externally screw threaded hollow extension 26 may be provided for connecting the hollow handle portion B to the hollow comb portion C.

Referring now to the absorbent pad E provided for the purpose of depositing the solution upon the hair during combing, this pad is preferably of material such as felt and has a width preferably equal to the distance between the guides 42 and 43 and a height equal to the distance between the flange or abutment 41 and the four fifths length of the teeth. However, the height of the pad may vary. This pad E may be rectangular in shape with ends 60 and 61 and sides 62 and 63. When positioning the pad E upon the comb portion C the ends 60 and 61 of the pad are guided along the guides or abutments 42 and 43 of the comb portion until the side 63 of the pad abuts against the flange or abutment 41. An aperture 64 or apertures may be provided in the pad E for a purpose hereinafter described.

A retaining clamp or plate F is provided having an aperture or apertures 70. Along the rear face 71 of the plate F is a longitudinal rib or lug 72 extending the length of the plate and positioned near its side 73 which side as well as the ends 74 and 75 and side 76 of the plate are rounded. While the rear face 71 of the plate is preferably flat, the front face 77 of the plate F may slope slightly toward the side 76 so that the thickness of the plate is greater at its side 73 than at its side 76 as well brought out in Figure 4. This retaining clamp or plate F may be made of material similar to the material making up the comb body. The purpose of this retaining clamp or plate is to hold and compress the absorbent pad E against the side of the comb portion C. The longitudonal rib or lug 72 is so positioned that when the absorbent pad and retaining clamp or plate are in position the rib or lug will be positioned above the opening 39′ of the eduction way 33 and compress the pad above the eduction way, thus preventing a leakage of solution above the plate F. This is brought out in Figure 4 of the drawings.

Referring now to the retaining means G for the plate F, this may comprise a cap screw 80 the shank of which passes thru the aperture 70 of the plate F thru the aperture 64 of the absorbent pad E and is threaded into

the socket 44 of the comb portion C. Adjustment of this cap screw in connection with the plate F provides for compression of the absorbent pad E against the side of the narrow portion 25 and teeth 20 of the comb portion C. As will be seen in Figure 4 of the drawings when the absorbent pad is compressed against the side of the comb portion C and the liquid receiving chamber contains the solution, capillary attraction will cause the solution to travel thruout the pad.

The comb is now ready for use and by drawing the same thru the hair with the side of the comb carrying the pad away from the scalp, a certain amount of the solution will be deposited on the hair by the pad. During use of the comb a certain amount of heat will be produced thru friction and this heat will be sufficient to vaporize the solution so as to thoroughly cover the hair. The operation may be repeated as found necessary and at times to take care of the new growth of hair.

From the foregoing description it will be apparent that a new and efficient device of this character has been disclosed embodying an arrangement whereby the solution is carried within the comb body and the absorbent pad is sufficiently pregnated with the solution for applying the solution to the hair during a combing operation.

Changes in detail may be made to the form of invention herein shown and described, without departing from the spirit of the invention or the scope of the following claims.

I claim:

1. In a fountain comb, the combination of an elongated handle portion and an elongated hollow comb portion provided with teeth, said portions detachably connected, said comb portion providing a liquid distributing chamber, and said comb portion also provided with an eduction way communicating with the liquid distributing chamber and opening exteriorly of said comb portion, spaced from said teeth.

2. In a fountain comb, the combination of an elongated handle portion, and an elongated hollow comb portion, said portions detachably connected, said comb portion providing an elongated liquid distributing chamber and said comb portion also provided with an elongated eduction way communicating with and paralleling substantially the length of the liquid distributing chamber.

3. In a fountain comb, the combination of an elongated hollow handle portion providing a liquid receiving chamber open at one end, and an elongated hollow comb portion providing a liquid distributing chamber open at one end of the comb portion with the walls of said last named open end gradually converging toward said distributing chamber, one of said portions provided with an externally screw threaded hollow extension and the other provided with an internally screw threaded sleeve portion, for threaded engagement with said extension to detachably connect the handle and comb portion and afford a gradually restricted communication from said liquid receiving chamber to said liquid distributing chamber.

4. In a fountain comb, the combination of an elongated hollow handle portion and an elongated hollow comb portion, said portions detachably connected, said handle portion providing a chamber and said comb portion providing a liquid distributing chamber, communicating therewith, said comb portion also provided with an annular shoulder about the open end of said distributing chamber, and a magazine having an open end and a closed end, said magazine disposed within the chamber of the handle portion and having its open end bearing against said shoulder and its closed end abutting against the closed end of said chamber of the handle portion, for retaining the magazine against vibration.

5. In a fountain comb, the combination of an elongated hollow handle portion and an elongated hollow comb portion, said portions detachably connected, said handle portion providing a chamber and said comb portion providing a liquid distributing chamber, communicating therewith, said comb portion also provided with an annular shoulder about the open end of said distributing chamber, said open end having its walls converging toward said distributing chamber, and a magazine having an open end and a closed end, said magazine disposed within the chamber of the handle portion and having its open end bearing against said shoulder.

6. A comb comprising a hollow body providing a fluid chamber, said body provided with an eduction way communicating with said fluid chamber, and also provided with a flange formed along one side and guides formed at both ends of said way, a distributor pad abutting said flange and said guides, and means for retaining said pad against said body.

7. A comb comprising a hollow body providing a fluid chamber, said body provided with an eduction way communicating with said fluid chamber and also provided with a flange formed along one side and at one end of said way, a distributor pad abutting said flange, and means for retaining said pad against said body.

8. A comb comprising a hollow body providing a fluid distributing chamber, said body provided with an eduction way communicating with said fluid distributing chamber, teeth extending from said body, a distributor pad overlying said way, a retaining plate for said pad, said plate provided with a rib for compressing said pad at a side of said way opposite said teeth, and retaining means for said plate.

9. A comb comprising a hollow body mem-

ber providing a fluid distributing chamber, said body member provided with an eduction way communicating with said fluid distributing chamber, teeth extending from said body, a distributor pad overlying said way, a retaining plate member for said pad, a rib carried by one of said members, for compressing said pad at a side of said way opposite said teeth, and retaining means for said plate.

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