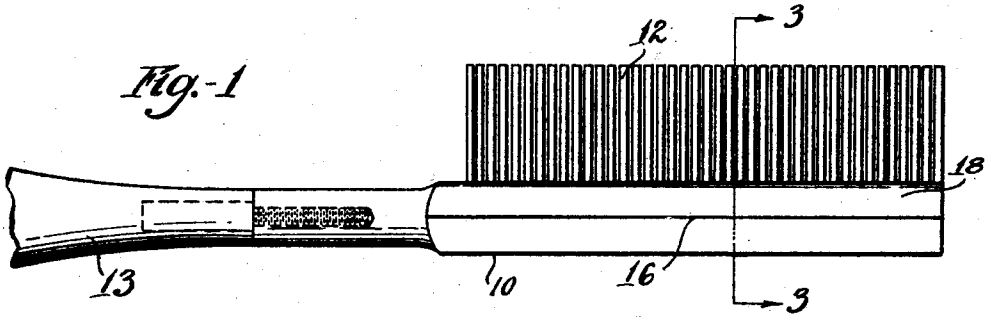
Oct. 27, 1925. 1,559,055

R. C. SMITH

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Fig.-1



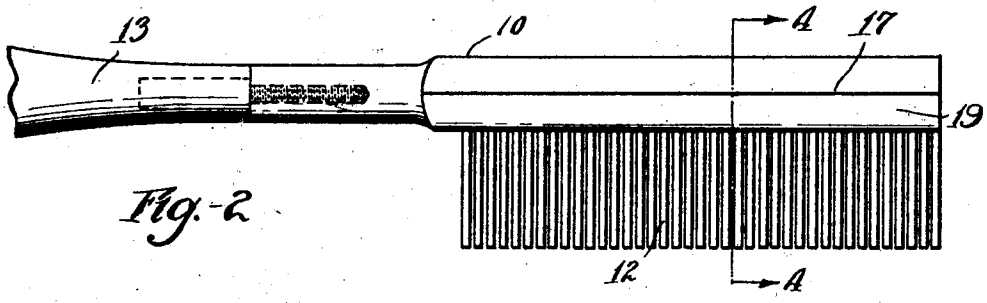


Fig.-2

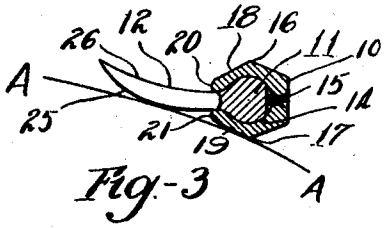


Fig.-3

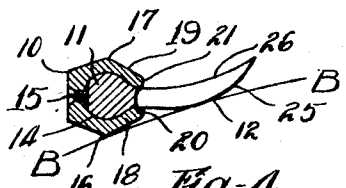


Fig.-4

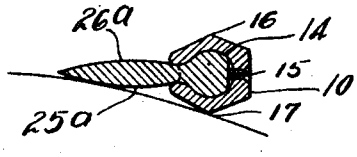


Fig.-5

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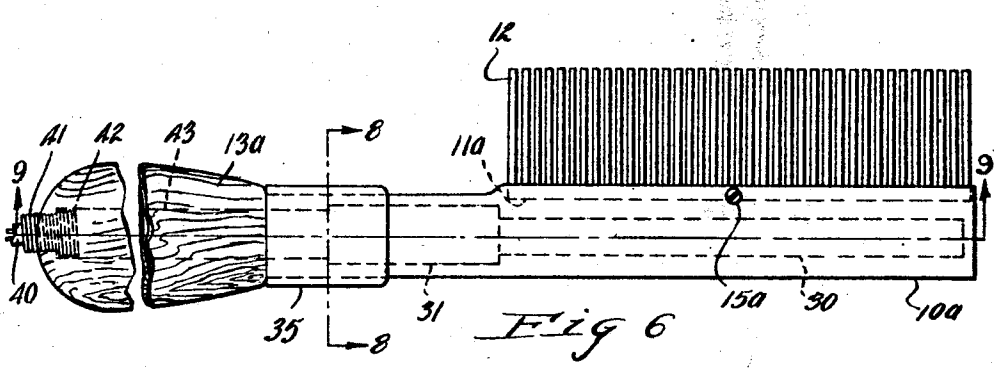


Fig 6

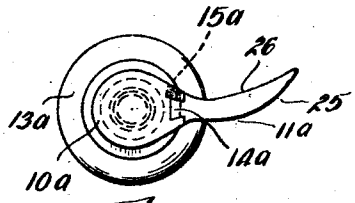


Fig.-7

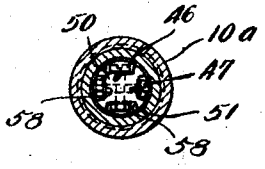


Fig.-8

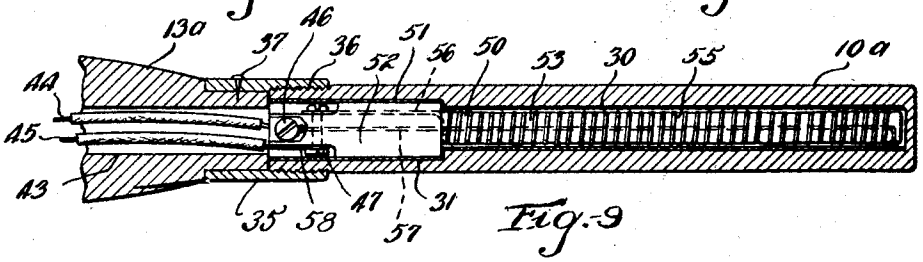


Fig.-9

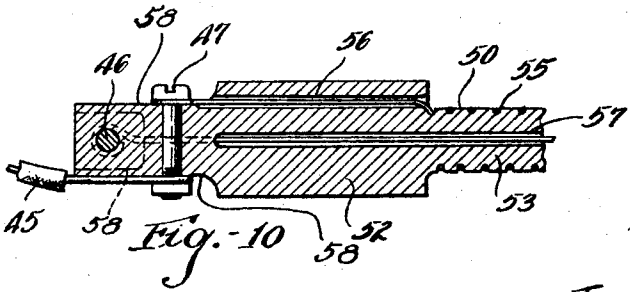


Fig.-10

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Patented Oct. 27, 1925. 1,559,055

UNITED STATES PATENT OFFICE.

ROBERT C. SMITH, OF CLEVELAND, OHIO, ASSIGNOR TO THE CLEVELAND TRUST COMPANY, A CORPORATION OF OHIO.

COMB.

Application filed November 5, 1923. Serial No. 672,809.

To all whom it may concern:

Be it known that I, ROBERT C. SMITH, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in a Comb, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to hair combs and has particular reference to a metallic comb which is adapted for use, when heated, in treating hair.

In certain hair treatments, a heated comb is passed through the hair and from the top of the head downwardly, and accordingly, the shape of the comb as well as the manner in which it is used are important considerations. For example, the comb must be shaped so that the heated points will not engage the scalp, and must be so formed that strands of hair will not be caught when the comb is being used. Accordingly it is desirable to make the contacting surface convex, and to so arrange the holder that the junction between the holder and comb is out of contact with the hair, thus enabling the comb to be used with ease and safety.

My invention therefore, is directed toward the attainment of the desirable features above set forth, and toward the provision of a comb which may be readily removed from the holder.

Other features will hereinafter become apparent in the following description which pertains to the drawings, and the essential characteristics will be summarized in the claims.

Fig. 1 is a side elevation of the comb adapted to be used when stroking from right to left. Fig. 2 is a similar side elevation showing the comb member reversed for use in the opposite direction. Figs. 3 and 4 are sections taken on the lines 3—3 and 4—4 in Figs. 1 and 2 respectively; and Fig. 5 is a section showing a modified form of teeth construction; Fig. 6 is an elevation of a modified form of the comb which has a self-contained electric heating element; Fig. 7 is an end elevation of the comb illustrated in Fig. 6; Fig 8 is a section taken on the line 8—8 of Fig. 6; Fig. 9 is a longitudinal section taken on the line 9—9 of Fig. 6; Fig. 10 is an enlarged section of the core head.

Designating the parts in the drawings by the use of reference characters, 10 indicates a holder adapted to receive a body 11 of a comb having teeth indicated generally at 12. The holder may be provided with suitable means for attachment to a handle 13 as indicated in Figs. 1 and 2. The holder and comb are preferably both of metal while the handle is formed of heat insulating material.

In Figs. 3 to 5, the body of the comb is shown as a bar which is shaped to slide within a groove 14 within the holder, and to be held therein by means of a set-screw 15 extending through the outer face of the holder. The exterior of the holder is provided with outwardly projecting portions, as at 16 and 17. That portion of the holder extending toward the comb from the points 16 and 17 is tapered sharply, as at 18, and 19, toward the teeth of the comb, and then rounded as at 20 and 21, adjacent the point of engagement with the comb. In this way, the comb and holder form a two-point contact upon the hair of the user, thus decreasing the tendency for strands of hair to enter the joint between the comb and holder. In Figs 3 and 4 the curved lines A—A and B—B represent the curvature of a head on which the comb is being used, and in these views, it will be noticed that the junction between the comb and holder is out of contact with the curved lines.

A convenient method of forming teeth is by cutting a number of uniformly spaced slots in a blank, the material remaining after such slotting thus forming the teeth. The burr or sharp corners sometimes left at the base of slots so formed and which might have a tendency to cut the strands of hair is disposed rearwardly of the overhanging rounded portions 20 and 21 of the holder as shown. Thus the difficult operation of removing such burr is eliminated.

The surface on the teeth which is adapted to engage the hair as shown in Figs. 3 and 4, at 25, is convex, while the opposite side

as at 26 is concave. The surface 26 is curved gradually to the point of the teeth, while the surface 25 extends approximately parallel to the contacting surface, and then is curved abruptly upwardly toward the surface 26. This forms a convenient ramp for enabling one to pass the comb quickly and easily over the hair.

The shape of the teeth, that is, the curvature of the points away from the scalp is particularly desirable to prevent injury. In use, however, the right and left hand curved teeth must be employed to obtain the results desired. The reversible feature therefore, enables one to satisfactorily use the comb on both sides of the head.

A comb having curved teeth as above described may be satisfactorily used by an individual merely by reversing the position of the teeth within the holder therefor. To obviate the necessity for such reversing operation however, I have shown a modified form of construction in Fig. 5, wherein both surfaces 25^a and 26^a are convex. The remaining construction is the same as heretofore described. With this modified type of construction, the engagement with the hair is effected at two points, thus decreasing the tendency for strands of hair to enter the joint between the body and the holder therefor.

In the modified form illustrated in Figs. 6 to 10, I have shown the comb described above with electric means for heating. In the drawings 10^a indicates a holder adapted to receive a body 11^a of a comb having teeth indicated generally at 12. The back portion is removably dove-tailed to the holder as before and may be secured to the holder 10^a by a set screw 15^a.

In this form I have shown the holder of somewhat different cross-section and have provided within it a recess 30 counterbored as at 31, for receiving the heating element while at one end it is externally threaded as at 36 for attaching a handle. The handle is also recessed as at 43 for containing the conductor wires and is adapted to be secured to the comb holder by a collar 35 threaded on the end portion of the holder and secured to the handle in any manner as by brads 37.

In Fig. 9, the holder and comb are preferably both of metal while the handle is formed of heat insulating material. Fig. 6 shows the cord 40 entering the handle through the usual strengthening coil of spring wire 41 larger in diameter at 42 within the central bore 43 of the handle.

The core 50 may be formed of porcelain or other heat resisting material and has an elongated reduced portion 53 spirally grooved to receive the heating coil 55. The enlarged shank portion 52 is adapted to receive binding posts or bolts 46 and 47 to which the ends of the resistance coil and the conductor wires attach. In the form shown I have provided a jacket of mica or similar material 51 entirely surrounding the core thus further insuring complete electrical insulation of the heating coils from the holder.

It will be noted that the bolts or binding posts 46 and 47 are set at right angles to each other a little distance apart and that the round shank of the core is cut away as at 58 to provide space for the terminals of the conductor wires and clamping faces beneath the heads and nuts of the binding posts 46 and 47. Suitable holes as 56 and 57 communicate with the reduced portion 53 of the core and through these, the ends of the heating coils communicate with their respective binding posts as shown. It will be noticed that I have shown the hole 57, running entirely through the reduced portion of the core thus obviating the necessity of providing an elaborate insulating return conduit between the coils and the wall of the holder. It is to be understood that either of the forms of teeth shown in Figs. 3 and 5 may be used with this type of holder.

In view of the foregoing description, it will be seen that my invention provides a metallic comb which, when heated, may be passed through the hair without danger of injury to the scalp, and without catching the hair of the user.

I claim:—

1. In a device of the character described, the combination with a holder having a longitudinally extending undercut groove therein and having laterally extending exterior portion, a member complementary to the groove slidable therein, said member having teeth with a convex surface projecting therefrom, the base portion of the teeth lying within the groove, whereby the joint between the holder and the member is out of contact with the surface to be combed and whereby cutting edges at the base of the teeth are concealed.

2. In a device of the character described, the combination with a holder having a longitudinally extending undercut groove therein open at one end and having the exterior tapered from the mid-portion to the groove, a member complementary to the groove and slidable therein, said member having a series of teeth projecting therefrom, the base of said teeth lying within the groove and at least one surface of the teeth being convex, whereby a portion of the convex surface adjacent the mid-portion of the holder engages the surface to be combed, and whereby the joint between the holder and member is out of contact with the surface to be combed.

3. In a comb, the combination of an electrical heating coil, an elongated heat con-

ducting casing surounding the coil, and provided with a longitudinally extending slideway, a removable and reversible metallic comb member provided with a slide portion for attaching the comb member to the casing member in the slideway, the surface of the slide being formed to afford intimate contact with the surfaces of the casing slideway, whereby a maximum heat conductivity between the casing and comb member may be assured.

In testimony whereof, I hereunto affix my signature.

ROBERT C. SMITH.