Dec. 8, 1942. L. B. SMITH ET AL 2,304,665

COMBINED HAIR BRUSH AND COMB

Filed Dec. 28, 1940 3 Sheets-Sheet 1

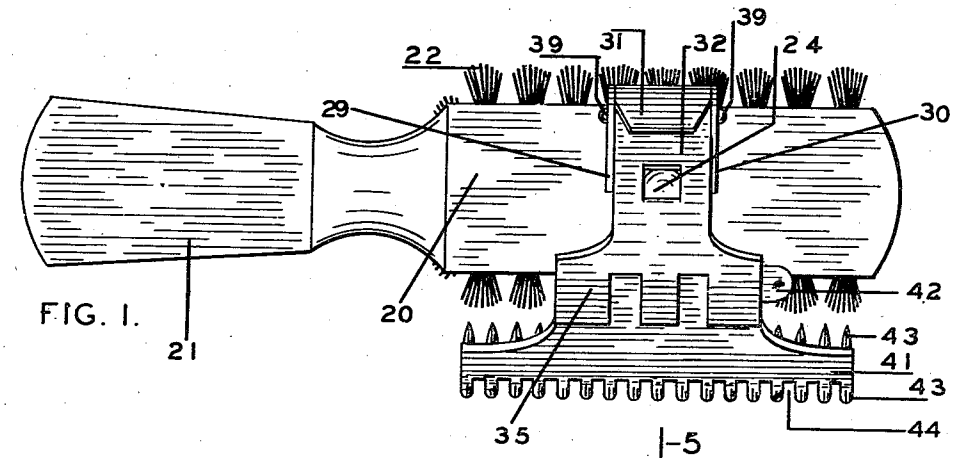


FIG. 1.

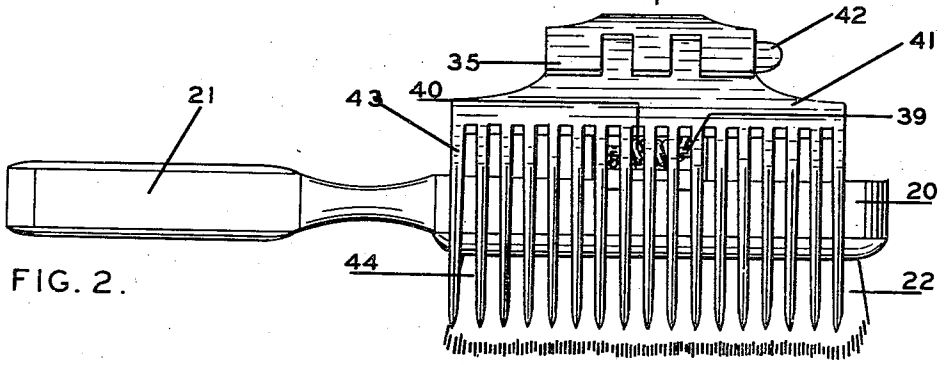


FIG. 2.

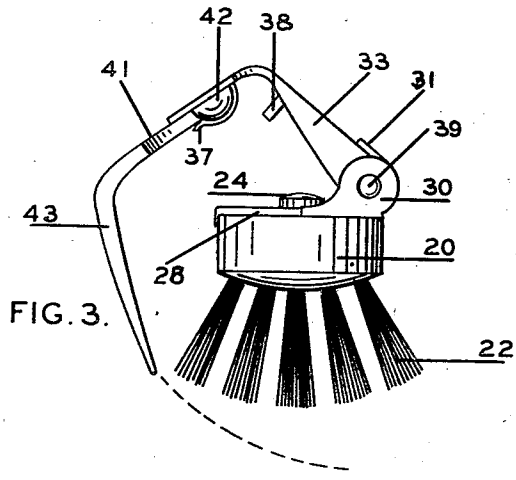


FIG. 3.

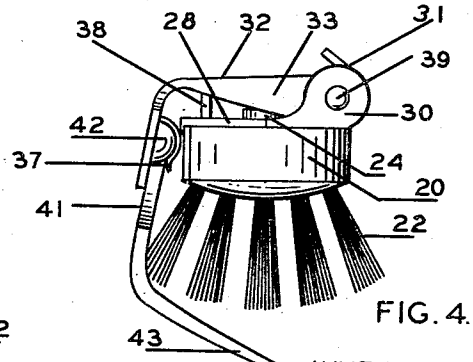


FIG. 4.

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COMBINED HAIR BRUSH AND COMB

Filed Dec. 28, 1940 3 Sheets-Sheet 2

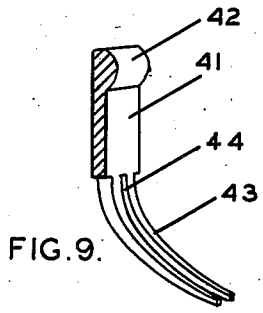


FIG. 9.

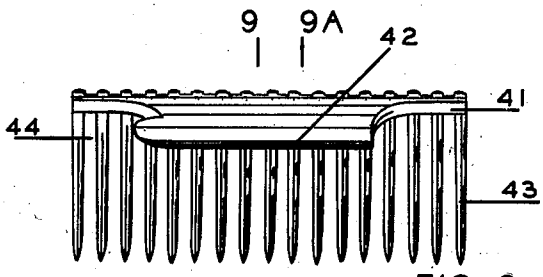


FIG. 8.

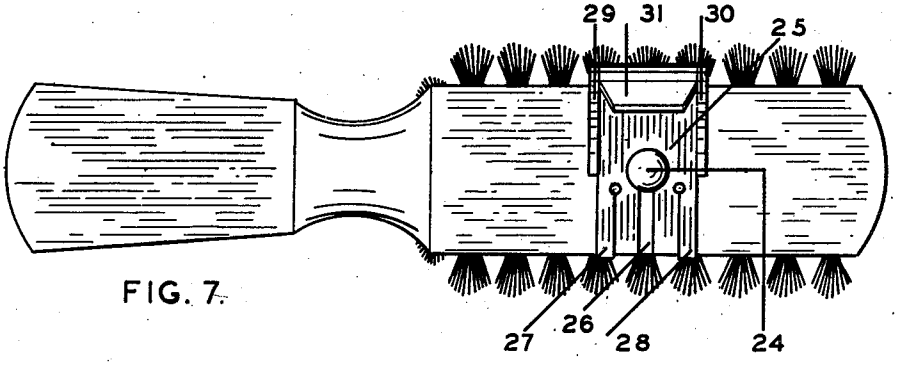


FIG. 7.

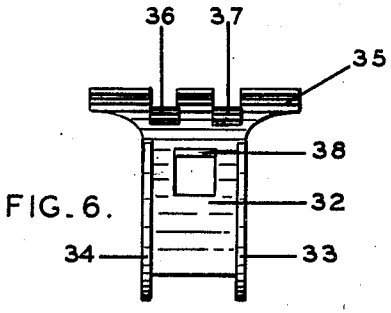


FIG. 6.

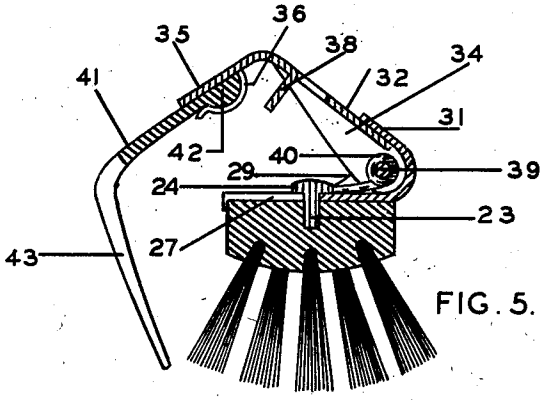


FIG. 5.

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COMBINED HAIR BRUSH AND COMB

Filed Dec. 28, 1940 3 Sheets-Sheet 3

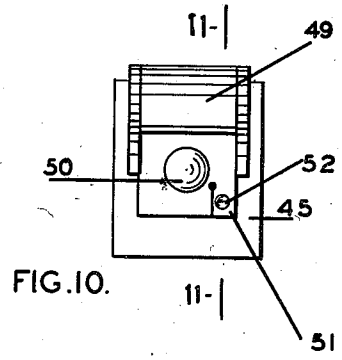


FIG. 10.

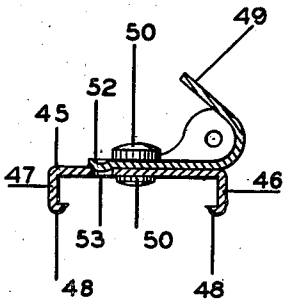


FIG. 11.

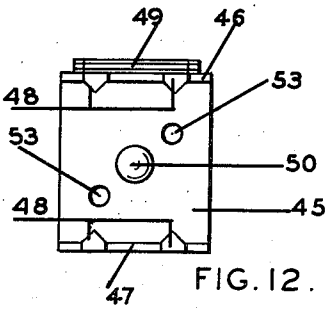


FIG. 12.

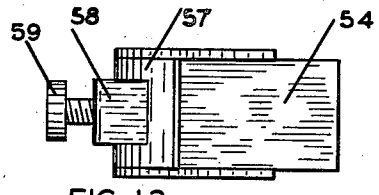


FIG. 13.

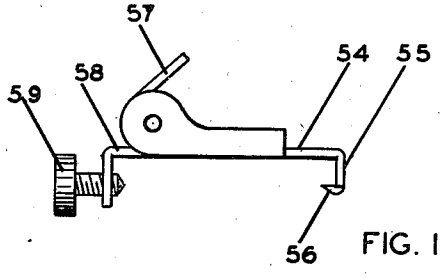


FIG. 14.

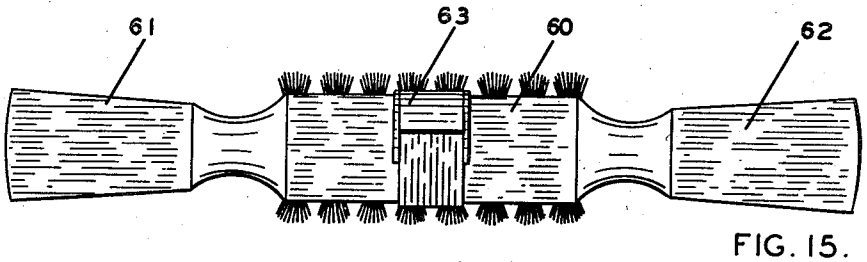


FIG. 15.

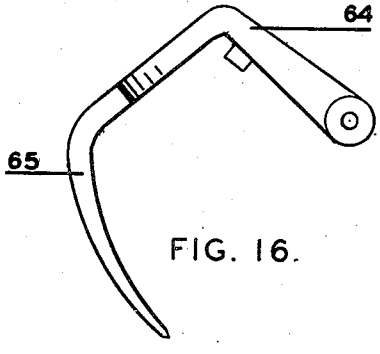


FIG. 16.

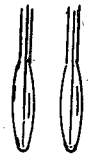


FIG. 17.

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2,304,665

UNITED STATES PATENT OFFICE

2,304,665

COMBINED HAIRBRUSH AND COMB

Lee B. Smith and George A. Smith,
Baltimore, Md.

Application December 28, 1940, Serial No. 372,064

19 Claims. (Cl. 132—85)

This invention relates to brushes and combs and more particularly to a combination of the two to permit their use in unison and as an aid one to the other.

To properly brush the hair, especially the longer hair of girls and women, so as to thoroughly clean it of dust and loose particles of dandruff, and to secure that sheen and luster which is so desirable, is often very difficult owing to the natural tendency of the hair to mat against the head under the pressure of the brush, and also for the ends, unsupported against the head, to fall or push away from the brush, which means that thorough brushing of the hair, so necessary for proper care and cleanliness, is often indifferently or improperly performed. This is especially noticeable in the prevailing style in which girls and young women wear their hair at shoulder length with the hair smooth on the head and only waved or curled at the ends, and where a sheen and smoothness in the straight or unwaved portion of the hair is so necessary to present a neat appearance.

Many attempts have been made to combine a comb a with a brush as an aid in the proper care of the hair. These attempts have met with but indifferent results mainly due to the fixed position of the comb, the angle at which the comb is placed with relation to the bristles of the brush and also to the shape of the comb itself.

The object of our invention is to provide a comb in combination with a brush to facilitate the more thorough brushing and cleaning of the hair.

A further object is to have the comb movably mounted on the brush, its normal position being at the side of the brush with the ends of the teeth of the comb raised slightly above the ends of the bristles in the brush, to enable the brush to be used with the comb in this position without engaging the comb.

A still further object is to have the comb, or the movable holder to which the comb is attached, arranged so it may be manipulated by the finger of the hand holding the brush, a pressure by the finger depressing the comb and bringing it obliquely under the bristles of the brush to engage and raise the hair, thus bringing the hair into closer contact with the brush. The amount of pressure on the comb regulates the depth to which it engages the hair, while a releasing of this pressure automatically and gradually disengages the comb until it is entirely free.

A still further object is to have the comb readily removable from the holder, and to have the holder reversible in order that the comb may be operated on either side of the brush to facilitate its use in either backward or forward brushing of the hair.

A still further object is to have the comb so shaped that when it engages the hair, the hair will naturally ride up in the comb into closer contact with the bristles of the brush, this action being the same whether small or heavy strands of the hair are engaged.

The invention consists of the novel construction and arrangement of the parts and combination of parts hereinafter more fully set forth in the following specification, and pointed out in detail in the appended claims.

In the accompanying drawings:

Figure 1 is a top plan view of the brush with comb attached and in the raised or normal position.

Figure 2 is a side elevation of Figure 1.

Figure 3 is a front end elevation of Figure 1.

Figure 4 is a view similar to Figure 3, but with the comb depressed and forced inwardly.

Figure 5 is a section on the line 5—5 of Figure 2.

Figure 6 is a bottom view of the movable portion of the comb holder.

Figure 7 is a top plan view of the brush, similar to Figure 1, but with the movable portion of the comb holder and the comb removed.

Figure 8 is a top view of the comb.

Figure 9 is a section, in perspective, of two teeth of the comb between the lines 9—9 and 9A—9A.

Figure 10 is a top plan view of a modification of the portion of the comb holder which is attached to the brush.

Figure 11 is a section on the line 11—11 of Figure 10.

Figure 12 is a bottom plan view of the holder shown in Figure 10.

Figure 13 is a top plan view of a further modification of the part of the comb holder which is attached to the brush.

Figure 14 is a side elevation of Figure 13.

Figure 15 is a top plan view of a brush with a handle at either end and with the attached part of the comb holder in place.

Figure 16 is a side elevation of a further modification with the comb and the removable portion of the holder united in one part.

Figure 17 is an enlarged view of the end portions of two teeth of a modification of the comb.

Referring to the accompanying drawings forming part of this specification, and in which like reference numerals designate like 20 the back of the brush, 21 the handle and 22 the bristles. The brush shown is long and narrow which is the preferred shape, although my invention could be adapted to any standard type hair brush. A pin 23 with a head 24 is imbedded in the center of the back 20 with the head 24 of the pin slightly raised from the back. The bottom portion 25 of the comb holder is held in place on the back of the brush by the head 24 of the pin 23 which latter fits the slot 26, permitting the holder to be freely slid on or off. When in place the part 25 is held securely in position by the bent over spring catches 27 and 28, which may be released by raising them from their grip on the edge of the brush back.

This bottom part 25 of the comb holder besides being provided with the slot 26 and the spring catches 27 and 28 for attaching to the back of the brush is provided with the two sides 29 and 30 folded over at right angles to the center portion, and the end 31 curved to fit the upper part of the holder and set to form a stop for the upward movement of this part. This upper part 32 of the holder is provided with the two sides 33 and 34 spaced and shaped to fit neatly between the sides 29 and 30 of the bottom 25. The free end 35 of the upper part 32 is bent downward and is provided with two spring catches 36 and 37, while a rest 38 is stamped out and folded downward as shown. The upper part 32 is fitted in the lower part 25 as shown and joined with it by means of the hinge pin 39, which also passes through the coiled spring 40 whose two free ends bear against the upper and lower hinged parts respectively. This spring is for the purpose of holding the upper part 32 in a raised position against the stop 31, unless pushed downward by pressure. The fastening pin 23 being placed in the center of the back 20, the holder may be reversed, when it is desired to brush and comb the hair in the opposite direction, or for the use of a left-handed person.

The special comb 41 is preferably shaped as shown in the drawings and is provided at its upper edge with the shoulder 42 of a size and shape to fit the catches 36 and 37 of the holder into which it slides and by which it is held securely in place. The teeth 43 of the comb are curved and bent as shown, and the sharpness of the bend and the amount of curvature would be as found most desirable. Also the openings 44 between the teeth continue up beyond the bend.

In Figures 10, 11 and 12 is shown a modification of the lower part of the comb holder, which is attached to the brush. In this modification the holder is attached permanently to the brush, and is made reversible or revoluble so the comb may be used on either side of the brush. Describing this modification in detail, the numeral 45 designates the base which is directly attached to the back of the brush. This base 45 is made of a length to fit the width of the brush to which it is to be attached. This is accomplished by means of the bent over ends 46 and 47 which fit on the sides of the back of the brush and which in turn are held in place with the sharp inwardly-projecting points 48, shown in Figures 11 and 12, and which sink into the sides of the back. The revoluble part 49 is attached to the base 45 by means of the rivet 50, which fits tightly in the base, but loosely enough in the revoluble part to permit free movement of this part. The revoluble part 49 attached to move freely on the base 45 is cut inwardly at one corner to form the spring or yielding portion 51 which is provided with a depression 52, adapted to spring into the apertures 53 in the base 45 to lock the revoluble part 49 in position. By means of the catch 52 and the apertures 53, the part 49, while turning freely around the pivot 50 in the base 45, can be locked in either of the two opposite positions against accidental movement. Except for the modifications shown, the part 49 is the same as the standard part first described.

In Figures 13 and 14 is shown still another modification of the lower part of the comb holder. In this modification the holder is made to clamp on any brush of a near size or shape. This is accomplished by means of gripping teeth and a set screw. Describing this modification in detail, the numeral 54 designates the base of the modified holder part, 55 the free end of the base folded at right angles to the base and 56 the special gripping teeth. The stop guard 57 is similar to the standard part but has a portion 58 cut free and bent back and downward at right angles to support the set screw 59, which fits in a threaded aperture in the downwardly projecting flange of the portion 58. This holder can be attached to the back of any brush of the proper size and shape to fit between the teeth 56 and the point of the set screw 59, and the holder is held in place by simply screwing the set screw tight. In this construction it would be a very simple matter to attach or detach the holder and also to reverse its position on the brush.

In Figure 15 is shown a modification of our invention in which a special brush provided with two handles is employed. These handles are at either end of the brush with the bristle portion between. Describing this special brush in detail, the numeral 60 designates the central or bristle portion of the brush, 61 the handle for a right-handed person making backward strokes and 62 the handle for a right-handed person making forward strokes. The handles would obviously be used in exactly the opposite order by a left-handed person. The comb holder 63 would be fastened solidly and non-reversibly to this brush, as the position of the comb could be reversed by changing handles.

In Figure 16 is shown a combination of the upper part of the comb holder and the comb, joined to form one part. In this combination the numeral 64 designates the portion which would normally be the upper part of the comb holder and is shaped similar to this part, while 65 designates the normal comb portion. In this design the entire part would preferably be made of suitable plastic or hard rubber, the main object being cheapness. It would be attached to the lower part of the holder in the normal manner, but obviously could not readily be changed.

In Figure 17 is shown an enlarged view of the ends of two modified teeth of the comb. It will be observed that in these teeth, after increasing in width from their points, they again decrease, becoming narrower, but added strength is supplied by increased thickness. The purpose of this design is to provide a more holding effect on the hair which has entered between the teeth of the comb.

Having described in detail the construction of our invention, we shall now describe its operation.

The brush with the holder attached and the comb in place will normally hold the comb slightly higher than the ends of the bristles, so it may be used for regular brushing in a normal manner. However, when it is desired to get the full benefit of the combination, the brush is grasped in the right hand in the usual manner and the forefinger allowed to rest lightly on the upper movable part of the comb holder. This will be a perfectly natural and easy position for the hand. Starting from the forehead, the hair is brushed backward in the usual manner, a slight pressure of the forefinger on the holder will force the comb into the hair, which is lifted against the bristles of the brush by this action. The pressure on the holder can be gauged and regulated by the feeling of pull on the hair, the harder the finger pressure the greater the strands of hair raised against the bristles. Also by lessening the pressure, the amount of hair in the comb will be reduced, and the comb may be automatically raised from the hair entirely by fully releasing the pressure of the finger. In this way an absolute and easy control can always be maintained on the depth to which the comb enters the hair and the pressure of the hair against the bristles of the brush, with the consequent pull. During this brushing a great depth can be reached into the hair, giving a full sweeping effect and a much better cleaning action than can be accomplished in any other manner. And always, at the finger tip, is full control, making it possible to either lighten or increase this sweeping action or to release it entirely, merely by the movement of the finger. If it is desired to brush the hair from beneath, at the neckline and forward, the comb holder is reversed on the brush, putting the comb on the opposite side, and then the procedure would be the same.

Proceeding in this manner the hair of the entire head may quickly and easily be brushed, freeing it of all dust and loose dandruff, and bringing out the full sheen and beauty. Also, a loose smoothness with a well brushed appearance, which is so necessary for certain styles, can be quickly and easily attained.

Having thus described our invention what we claim is:

1. The combination with a brush, of a comb holder secured to said brush and held normally in a set position by a spring, and a comb removably fitted in said holder and adapted to be regulated with reference to the proximity to bristles of said brush by pressure and adapted to be returned to it normal position upon removal of said pressure.

2. The combination with a brush, of a comb holder reversibly secured to said brush the axis of reversal being perpendicular to the back of the brush, and a comb removably fitted in said holder and adapted to be regulated with reference to the proximity to the bristles of said brush.

3. The combination with a brush, of a comb holder reversibly secured to said brush and held normally in a set position by a spring, means to hold the comb holder in the adjusted position, a comb removably fitted in said holder and adapted to be regulated with reference to the distance between the comb teeth and the bristles of said brush.

4. The combination with a brush, of a comb holder reversibly secured to said brush and adapted to be raised and lowered to change the position of the teeth of the comb relative to the bristles of the brush, the axis of reversal being perpendicular to the back of the brush, and a comb removably fitted in said comb holder.

5. The combination with a brush, of a plate reversible secured to said brush, a comb holder secured to said plate and adapted to be reversed therewith, a comb removably secured in said holder and adapted to be regulated to change the distance between the comb teeth and the bristles of the brush.

6. The combination with a brush, a plate reversibly secured to said brush, a comb holder hinged to said plate, a comb removably fitted in said comb holder and adapted to be regulated with reference to the proximity of the teeth of the comb and the bristles of the brush when the comb holder is moved on its hinge.

7. The combination with a brush, of a comb holder revolubly secured to said brush, and a comb removably fitted in said holder and adapted to be regulated with reference to the proximity to the bristles of said brush.

8. The combination with a brush, of a comb holder revolubly secured to said brush, means to hold the comb holder in the adjusted position, a comb removably fitted in said holder and adapted to be regulated with reference to the distance between the comb teeth and the bristles of said brush.

9. The combination with a brush, of a comb holder revolubly secured to said brush and adapted to be raised and lowered to change the position of the teeth of the comb relative to the bristles of the brush, and a comb removably fitted in said comb holder.

10. The combination with a brush, of a plate revolubly secured to said brush, a comb holder secured to said plate and adapted to revolve therewith, a comb removably secured in said holder and adapted to be regulated to change the distance between the comb teeth and the bristles of the brush.

11. The combination with a brush, a plate revolubly secured to said brush, a comb holder hinged to said plate, and adapted to revolve therewith, a comb removably fitted in said comb holder and adapted to be regulated with reference to the proximity of the teeth of the comb and the bristles of the brush when the comb holder is moved on its hinge.

12. The combination with a brush, of a comb attached to said brush and placed at the side of said brush with the teeth pointing downward along the line of the bristles and then bent sharply to extend obliquely across the ends of the bristles.

13. The combination with a brush, of a comb holder secured to said brush, and a comb removably fitted in said holder, said holder normally maintaining the comb in a raised position, but being depressible under pressure, and returning to its normal position upon removal of the pressure.

14. The combination with a brush, of a comb holder secured to said brush, and a comb removably fitted in said holder, said holder normally maintaining the comb in a raised position, said comb holder being depressible under pressure and in its downward movement bringing the comb obliquely under the bristles of the brush.

15. The combination with a brush, of a comb hinged to said brush and held normally in a set position by a spring and adapted to move by the action of the hinge from the side obliquely under the bristles of said brush.

16. The combination with a brush of a hinged

comb holder reversibly secured to said brush by one leaf of the hinge, said secured leaf of the hinge being provided with a guard to prevent opening of the free leaf of the hinge beyond a set position.

17. The combination with a brush of a hinged comb holder reversibly secured to said brush by one leaf of the hinge, said secured leaf of the hinge being provided with a guard to prevent opening of the free leaf of the hinge beyond a set position, and a spring adapted to normally maintain the hinge open to the set position, but permitting the closing of the hinge under pressure.

18. The combination with a brush of a hinged comb holder reversibly secured to said brush by one leaf of the hinge, said secured leaf of the hinge being provided with a catch to hold it in the determined position with relation to the back of the brush, said secured leaf of the hinge being provided with a guard to prevent opening of the free leaf of the hinge beyond a set position, a spring adapted to normally maintain the hinge open in the set position, but permitting the closing of the hinge under pressure, the spring automatically opening the hinge again to the set position upon the removal of pressure, and the free end of the free leaf of the hinge being provided with means for attaching a comb thereto.

19. The combination with a brush of a hinged comb holder reversibly secured to said brush by one leaf of a hinge, said secured leaf of the hinge being provided with a cath to hold it in the determined position with relation to the back of the brush, said secured leaf of the hinge being provided with a guard to prevent opening of the free leaf of the hinge beyond a set position, a spring adapted to normally maintain the hinge open in the set position, but permitting the closing of the hinge under pressure, the spring automatically opening the hinge again to the set position upon the removal of pressure, and the free end of the free leaf of the hinge being provided with means for attaching a comb thereto; and a comb adapted to be attached to the free end of the comb holder and shaped to extend diagonally across the bristles of the brush when the comb holder is in a depressed position.

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