May 21, 1946. C. VRANA 2,400,723

MOTOR DRIVEN BRUSH WITH COMB

Filed Oct. 30, 1945

Fig. 2.

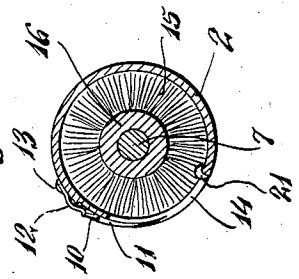


Fig. 4.

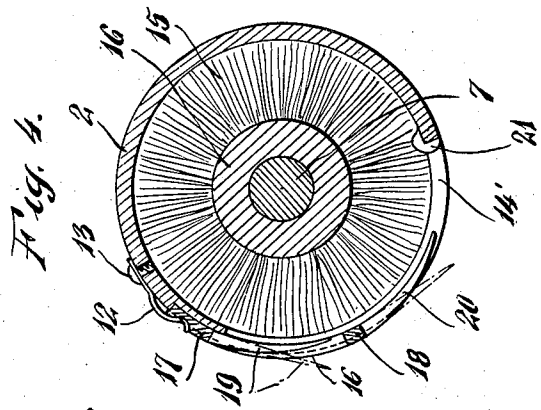


Fig. 1.

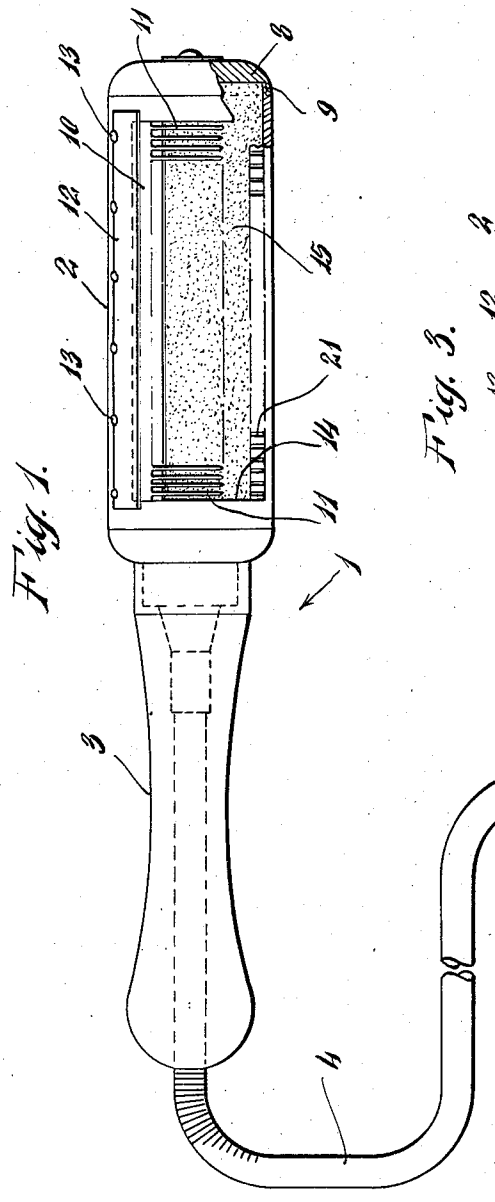
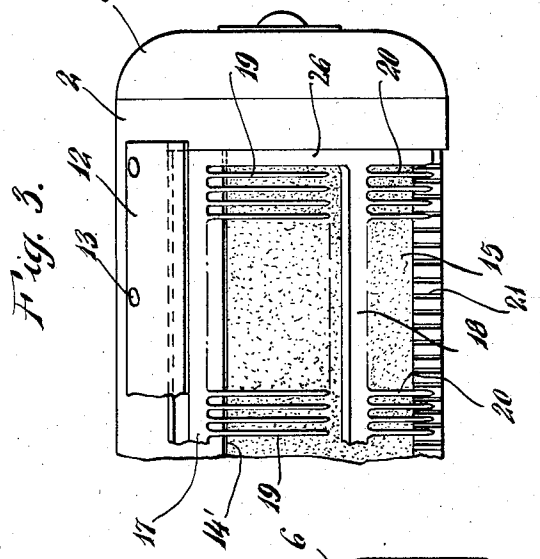


Fig. 3.



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MOTOR-DRIVEN BRUSH WITH COMB

Charles Vrana, Garfield, N. J.

Application October 30, 1945, Serial No. 625,509

1 Claim. (Cl. 132—85)

The present invention relates to improvements in hair combing and brushing devices and, more specifically, it relates to a new and improved motor driven circular brush with comb.

The primary object of the invention is to provide a simple and efficient device of this character for combing and for brushing the hair of the head and which is constructed so as to prevent entanglement of the hair with the brush and which may be readily disassembled for cleaning of the parts and quickly assembled for use.

Another object of the present invention is the provision of a device of the character described which is so constructed that a comb can be easily and quickly attached to the rotary brush or detached and another comb of different type substituted therefor and that this attaching or detaching of combs can be carried out properly without the use of any tools and without the application of any considerable amount of skill.

Still another object of the present invention is the provision of a device of the character described which is light in weight, easy to operate, convenient in use, of a pleasant appearance, and simple and inexpensive to manufacture, so that it can be used widely in barber shops as well as in private homes.

Yet still a further object of the present invention is the provision of a device of the character described which will save time and effort by giving, after a short application, the same lustre and benefit to the hair which with an ordinary brush can be attained only by cumbersome one hundred or more brush strokes each day.

Further objects of the instant invention reside in any novel feature of construction or operation or novel combination of parts present in the embodiment of the invention described and shown in the accompanying drawing whether within or without the scope of the appended claim and irrespective of other specific statements as to the scope of the invention contained herein.

In the drawing:

Figure 1 is a side elevation of a preferred embodiment of my invention;

Fig. 2 is a cross-sectional view through the main part of Fig. 1;

Fig. 3 is a side elevation of a preferred modification of my invention partially broken away and drawn on an enlarged scale; and

Fig. 4 is a cross-sectional view through the modification of Fig. 3.

Similar reference characters refer to similar parts throughout the several views.

In the drawing the numeral 1 denotes a combing and brushing device comprising a tubular, longitudinal casing 2 from whose one extremity extends a handle 3. A flexible shaft 4, which is extended into the handle 3, connects the device 1 to a reduction gear 5 which is driven by an electromotor 6. A spindle 7, which is rotatably arranged within the casing 2, is driven by the flexible shaft 4; and a bearing member 8, which supports the outer extremity of the spindle 7, is detachably secured to the casing 2 by means of a screw connection 9 (Fig. 1) or in any other suitable manner.

A comb having a back 10 and teeth 11 is detachably secured to the outer side of casing 2 in such a manner that the comb teeth 11 extend partially over an open portion 14 of the casing 2. I prefer to carry out this feature of my invention in the manner shown in the drawing, where it will be seen that the casing 2 has a longitudinal recess adjacent its open portion 14, and that the back 10 of the comb is held in said recess by means of a spring or resilient blade 12 whose front portion engages a longitudinal groove in the back 10 of the comb while its rear portion is secured to the casing 2 by means of screws 13 or in any other suitable manner.

An elongated shaft-like body 16 of the brush is secured to the spindle 7, and bristles 15 extend radially from the body 16.

According to the modification of Figs. 3 and 4 a double comb is detachably secured to the housing 2 in substantially the same manner as described in connection with the comb shown in Figs. 1 and 2. This double comb has a primary back 17, which has a longitudinal groove on its upper side that is engaged by the spring 12, and a secondary back 18 which is at both extremities connected to the back 17 by lateral members 26 (Fig. 3). In this way the back 17, from which extends a row of teeth 19, and the back 18, from which extends a row of teeth 20, and the lateral members 26, which are preferably made as a unit with the parts 17 and 18, constitute a frame-shaped member whose teeth 19 and 20 extend partially over the open portion 14 of the casing 2.

The teeth 11, 19 and 20 can be curved as shown in full lines in Figs. 2 and 4, or they can be substantially straight as indicated by dash-and-dotted lines in Fig. 4. Since a comb can easily be detached from or attached to the casing 2 by manipulation of the spring 12, one and the same brushing device can be provided at different times, with various combs; for instance a fine comb can be interchanged with a coarse comb,

or a comb having straight teeth can be interchanged with a comb having curved teeth, or a comb as shown in Figs. 1 and 2 can be interchanged with one as shown in Figs. 3 and 4, or the device can be used without a comb as a brush only.

When the device is used the parts 7, 15 and 16 are caused to rotate by switching on the motor 6, and then the comb is drawn through the hair in a usual manner, thereby the rotating brush causing the same effect as would be attained by many strokes with a hand brush. One side of the open portion 14 (and 14') is provided with a row of low teeth 21 to prevent entanglement of the hair with brush 15.

Since certain changes may be made in the above article and different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claim is intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which as a matter of language might be said to fall therebetween.

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

A brushing and combing device comprising a tubular longitudinal casing whose side wall is partially open, a handle extending from one extremity of said casing, a brush having a spindle rotatably mounted within said casing, means connected with the spindle and extended through the handle for rotating said brush, a comb having a longitudinal groove in its back and resting with its back in a longitudinal recess of said casing which recess is adjacent the open wall portion of said casing, and resilient means attached to said casing and engaging said groove in the back of said comb, all substantially as described.

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