Jan. 14, 1969 V. A. MAGGUILLI 3,421,522

HAIR TEASING DEVICE

Filed Feb. 4, 1965

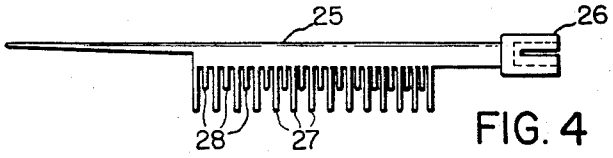


FIG. 4

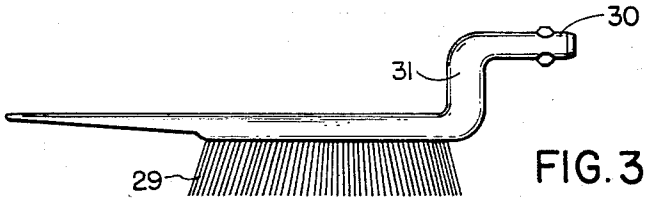


FIG. 3

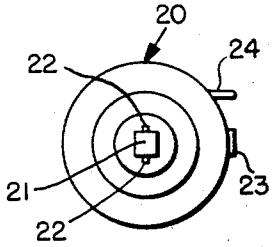


FIG. 2

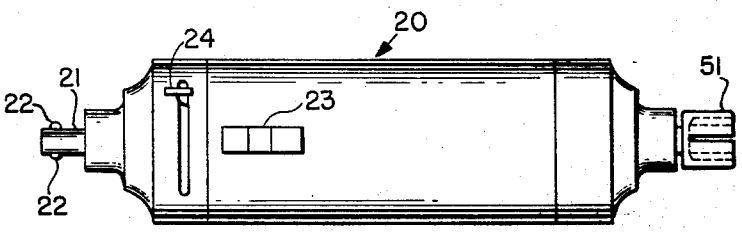


FIG. 1

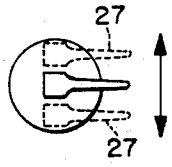


FIG. 5

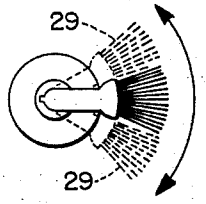


FIG. 6

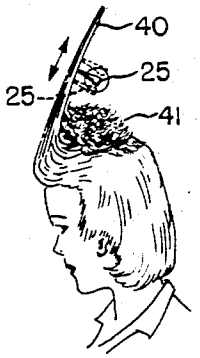


FIG. 7

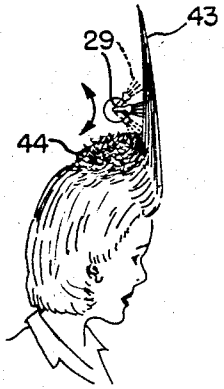


FIG. 8

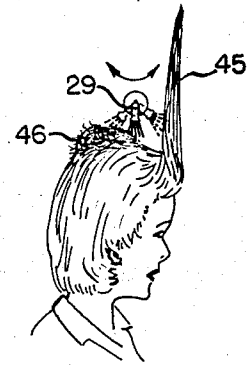


FIG. 9

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HAIR TEASING DEVICE

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Int. Cl. A45d 24/00

ABSTRACT OF THE DISCLOSURE

A hair teasing device is formed with a hand-held drive motor with couplings at opposite ends for holding the respective shafts of a comb and a brush for hair teasing. The comb has a straight shaft and is driven in a linear reciprocal motion transverse to the plane of its teeth, and the brush has a crank in its shaft and is driven in a reciprocal arcuate motion. The comb is preferably driven at a higher rate of reciprocation than the brush. Both the comb and the brush can be used for teasing hair downward toward the scalp, and the brush can be used for moving teased hair to a proper location.

The present invention relates to a hair teasing device and more particularly to a hand-held, electrically driven device for teasing hair.

In teasing of hair, generally, strands of hair are disordered and piled in a random, nonparallel or tangled manner relative to each other so that the resulting pile of teased hair builds up to a greater height than could be obtained merely by generally parallel strands of hair. Such teased or tangled hair provides "body" for various hair styles, and hair is teased to build up a depth of hair for a preferred hair style.

Teasing of hair is accomplished generally by combing or brushing hair toward the scalp. Preferably, a group of hair strands is lifted up or outward from the scalp, and relatively short reciprocating strokes of a brush or comb are used to pack the strands toward the scalp in the desired tangle to provide "body" to uphold generally parallel hair strands laid over the teased hair.

The teasing of hair as above described necessitates many rapid hand and wrist motions, and is a laborious process. It is an object of this invention to reduce the time and labor required for teasing hair.

Another object of the invention is to tease hair by a motor-driven device that is more rapid than hand operations and that is safe, reliable, and efficient in its operations and inexpensive to manufacture and operate.

Another object of the invention is to provide a single motor-driven hair teasing device that is adapted to drive either a brush or a comb in the necessary motions and at the desired speed to accomplish various hair teasing operations.

These and other objects of the invention will be apparent from the drawings, the following specification, and the appended claims. To these and other ends, the invention resides in certain improvements and combinations of parts, all as will hereinafter be more fully described, the novel features being pointed out in the claims at the end of this specification.

In the drawings:

FIG. 1 shows a side elevation of a drive unit for a teasing brush and comb according to the invention;

FIG. 2 shows a front view of the drive unit of FIG. 1;

FIG. 3 shows a brush adapted to be driven by the drive unit of FIG. 1 for teasing hair according to the invention;

FIG. 4 shows a teasing comb adapted to be driven by the drive unit of FIG. 1 for teasing hair according to the invention;

FIGS. 5 and 6 schematically represent the motion of the teasing comb of FIG. 4 and the teasing brush of FIG. 3 respectively according to the invention;

FIG. 7 shows the teasing of hair with a teasing comb according to the invention;

FIG. 8 shows the teasing of hair with a brush according to the invention; and

FIG. 9 shows "pealing" of teased hair with a brush according to the invention.

Referring to FIGS. 1 and 2, electric drive means **20** is preferably adapted for driving both a teasing comb and a brush in the proper motions for teasing hair according to the invention. Drive means **20** is preferably variable speed so that the speed of a brush or comb can be selected by the operator. Switch **23** is arranged for turning the drive on or off, and a counterpart switch **23** can be arranged at the opposite end of the device for convenient operation to start or stop the drive means no matter which way it is held in the hand or which end is driving the working implement. Switch **24** controls the variable speed of the drive and can also have a counterpart arranged at the opposite end of drive means **20**. Of course, switches **23** and **24** can be combined in a single on-off speed control switch.

FIGS. 3 and 4 show a brush **29** and a teasing comb **25** suitable for teasing hair and adapted for connection to drive means **20** to be driven for the teasing of hair according to the invention. Brush **29** can be a conventional bristled implement having a crank **31** in its shaft for producing the desired motion, and comb **25** has a conventional arrangement of long teeth **27** interspaced by short teeth **28** as preferred for hair teasing.

Drive means **20**, brush **29**, and teasing comb **25** are preferably arranged for intercoupling in the desired driving relation. Accordingly, drive means **20** is provided at one end with coupling means **21** adapted for holding and driving comb **25**, and at its opposite end with coupling means **51** adapted for holding and driving brush **29**. Coupling means **21** and **51** and their mating counterparts on brush **29** and comb **25** can be any variety of chucks, arbors, clamping devices, etc. for securely coupling implements to the driving means.

Coupling means **51** at one end of drive means **20** is preferably differentiated from coupling means **21** at the opposite end of drive means **20** so that comb **25** and brush **29** can be coupled to drive means **20** only through the coupling that is specifically adapted to drive each respective implement. Thus, socket **26** on comb **25** is adapted to engage coupling shaft **21** with its spring-loaded detents **22** for a snap fit at one end of drive means **20** so as to be driven in the desired linear reciprocal motion. At the other end of drive means **20** such coupling means are reversed, and brush **29** is provided with coupling shaft **30** for a snap fit in socket **51**. Through socket **51**, coupling shaft **30**, and crank **31**, brush **29** is driven in the desired reciprocal arcuate motion.

It is preferred that the drive for brush **29** through coupling means **51** be slower than the drive for comb **25** through coupler **21**, because comb **25** can be moved rather rapidly in its reciprocal linear motion in teasing hair, but the sweeping arcuate motion of brush **29** is preferably slower. Part of the explanation for this preference is the difference in friction and engagement between combs and brushes relative to hair.

In addition to the permissible variety of coupling means for interconnecting a brush or comb with drive means **20** according to the invention, any selected coupling

means can be recessed into drive means **20** so that moving members are not exposed at the ends of drive means **20** for catching the operator or any stray hairs. Also within the spirit of the invention, it is possible to use drive means with either or both implements connected.

FIG. 5 schematically shows the preferred driven motion of teasing comb **25** when coupled to drive means **20** through coupling shaft **21**. Such preferred motion is linearly reciprocal so that with the comb arranged transversely of strands of hair in the conventional manner, teeth **27** and **28** are moved back and forth longitudinally of the hair in a linear reciprocal motion.

FIG. 6 schematically shows the preferred motion of brush **29** as produced by its coupling to drive means **20** through socket **51**. Socket **51** is driven in a rotationally reciprocal fashion to drive the bristles of brush **29** reciprocally through an arc as illustrated.

The teasing of hair with comb **25** driven in a linear reciprocal motion is illustrated in FIG. 7. A group of hair strands is held generally upright or outward from the scalp, and comb **25** is placed transversely of the strands and in engagement with the hairs in which position it is driven in its vibrational or reciprocally linear motion. As so driven, comb **25** packs some of the hairs from the strands **40** downward in a teased or tangled mass **41** near the scalp. This procedure is repeated as desired about the head for building up a body of teased hair to achieve the desired hair style.

Hair teasing with brush **29** driven according to the invention is illustrated in FIG. 8. Teasing with a brush is similar to the above-described teasing with comb **25**, but because the action of brush **29** on strands of hair is different from that of comb **25**, a preferred motion for teasing hair with brush **29** is the reciprocal motion through an arc as illustrated in FIG. 6. With brush **29** being driven through such a reciprocally arcuate motion, brush **29** is worked against strands **43** to pack down a group of disordered strands of teased hair **44**.

As teasing of the strands **40** and **43** progresses, a considerable pile of teased hair accumulates near the roots of such strands, and for some hair styles, and for some teasing operations, it is preferred to move the teased hair a short distance away from the area in which it was first packed down. This operation is known as "pealing" and is illustrated in FIG. 9. Pealing is preferably done with brush **29** driven through its reciprocal arcuate motion, and it is preferred that the operator time the movement of teasing brush **29** with its reciprocal motion so that brush **29** sweeps teased hair **46** away from uplifted strands **45** in one sweeping motion. Brush **29** is then lifted by the operator from engagement with teased hair, and teasing of uplifted strands **45** is continued. The moving of teased hair by the pealing method illustrated in FIG. 9 allows more space near the roots of the uplifted strands **45** for teasing additional strands from the group, and also serves to move teased hair about to locate it in a desired position for a preferred hair style.

Teasing and pealing of hair by the above-described method is convenient and easy for an operator using the inventive motor-driven teasing comb and brush, because such device can move a brush or comb more rapidly than can a human operator without undue fatigue or loss of control. The operator can concentrate his attention on the action of the comb or brush relative to the hair and on the effect being worked without being forced at the same time to move his hands rapidly and tiresomely. The inventive device speeds up the process of hair teasing to effect an obvious saving to hairdressers who tease hair for many customers.

While the invention has been disclosed herein by reference to the details of a preferred embodiment, it is to be understood that such disclosure is intended in an illustrative, rather than a limiting, sense, and it is contemplated that various modifications of the construction and arrangement of the parts will readily occur to those skilled in the art, within the spirit of the invention and the scope of the appended claims.

I claim:

1. A hair teasing device comprising:

(a) an electric drive means housed in a generally tubular housing that can be conveniently gripped by hand;

(b) a first coupling means arranged on one end of said tubular housing;

(c) a second coupling means arranged on the opposite end of said tubular housing;

(d) a teasing comb held by said first coupling means;

(e) means for driving said first coupling means to give said teasing comb a linearly reciprocal motion to move said comb teeth between two parallel planes spaced apart approximately by the length of said comb teeth;

(f) a hair brush having a crank arm and held by said second coupling means; and

(g) means for driving said second coupling means to move said hairbrush reciprocally through an arc around the axis of said second coupling means to move said hairbrush bristles through arcs exceeding the length of said bristles.

2. The device of claim **1** wherein each of said drive means are arranged to be driven at various speeds.

3. The device of claim **2** wherein said comb is adapted to be reciprocated at a faster rate than said brush.

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