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Apaisant Comb: A Multipurpose Brush to Help Maintain Healthy Hair and Scalp

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ABSTRACT

Personal grooming and hair care continue to see tremendous breakthroughs thanks to innovation. Because of their hurried lifestyles, most individuals have little to no time for personal self-care. People are worried about the health of their hair and scalp, yet many of them are too lazy or busy to go through the various processes required to care for their hair and scalp. Furthermore, traditional hair care treatments sometimes overlook the importance of scalp care, focusing just on hair strands rather than the scalp environment, which is where healthy hair development begins. The goal of this innovation is to create a customized brush that acts as a scalp messenger and secretes nourishing hair fluid to help individuals reach healthy hair and scalp wellbeing. The novel device combines a regular hairbrush, a discreet, portable vibrator, and an integrated oil pouring system. This unique combination offers users with a practical device that enhances their self-care routines. The brush's design incorporates a reservoir for holding essential oils or hair serums, which may be dispersed via the brush's teeth for simple application while massaging the scalp. The Apaisant Comb, which holds the serum, can assist customers apply the serum more efficiently by brushing their hair while a tiny amount of serum is placed equally at their scalp. Furthermore, the brush's form, which incorporates an ergonomic handle, makes it easier for the user to hold. This new device is intended to revolutionize hair care by providing a simple and pleasurable approach to maintain healthy hair and scalp. It might be argued that this invention would modify people's habits of keeping healthy hair and scalp, increasing the commercialization potential in the beauty business.

Keywords: Apaisant Comb; scalp; hair; hair care; serum.

1. INTRODUCTION

All humans seek healthy hair and scalp. This desire is tied to both the care regimen and the products utilized. Many instruments have also been developed to meet this demand, such as the many kinds of combs available on the market with different aims. Scalp massage is the process of applying calming pressure to your scalp using your hands or massaging tools. Many people massage their scalps at home, but a qualified massage therapist may also do a scalp massage. According to research, regular scalp massage may boost hair development, minimize hair loss, and improve hair thickness in certain people. Additional benefits of scalp massage include less stress, increased blood flow, decreased blood pressure, and a slower heart rate. Some studies show that scalp massage might promote hair growth. The studies were recorded in 2016 and 2019 where it discovered that males who underwent a regular scalp massage had considerably

thicker hair after six months. Over 70% of participants suffer androgenic alopecia, generally known as male pattern baldness or female pattern hair loss who massaged their scalp for up to 20 minutes each day had hair loss stabilization or hair regeneration after six to eight months (Dorwart, 2024). Depending on the product and its contents, hair serum can provide a variety of advantages to your hair. Some of the most popular advantages of utilizing hair serum are moisturizing, anti-frizz, heat protection, nourishment, shine enhancement and detangling (R., 2024). Everyone who has hair brushes it, even never given any consideration to what sort of brush to use. Using the proper hairbrush for your hair and style demands may improve its health and beauty (*“Royale Multi-Purpose Ceramic Hairbrush Plus Shampoo and Conditioner and Serum,”* 2024) (Gallagher, 2020). With so many various types of hairbrushes and combs available, it can be difficult to decide which specific brush is the best for certain hair type and problems. The goal of this innovation is to make it easier for people to obtain healthy hair and scalp wellness by utilizing a particular brush that acts as a scalp messenger and secretes nourishing hair fluid. The unique tool combines a regular hairbrush with a discrete, portable vibrator and an integrated oil pouring system. This unique combination provides consumers with a multipurpose gadget that improves self-care routines.

1.1 Problem Statement

Given that people live in such a fast-paced, contemporary society, most individuals have little to no time for personal self-care. People all over the world are worried about the health of their hair and scalp, yet many of them are too lazy and busy to follow the numerous steps required to care for their hair and scalp. Furthermore, traditional hair care treatments occasionally overlook the importance of scalp care, focusing on only hair strands rather than the scalp environment, where healthy hair development begins.

1.2 Objectives

The objectives of this innovation are: -

- i. to develop a special brush that functions as a scalp messenger.
- ii. to design a special brush that can secretes nourishing hair serum via brush's teeth.
- iii. to provide user with comfort in handling hair and scalp treatment with ergonomic handle.

2. METHODOLOGY

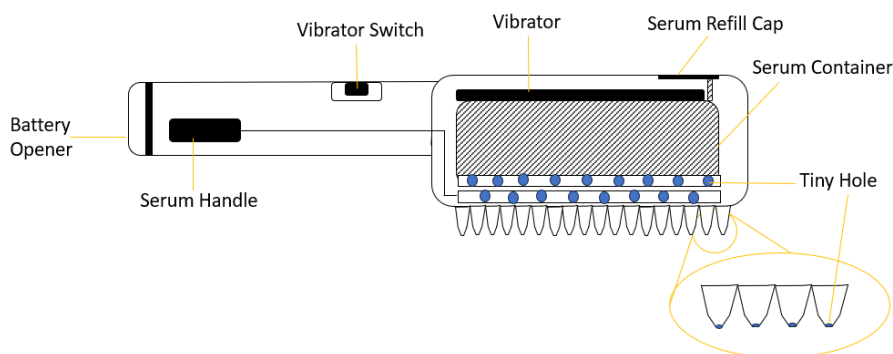


Figure 1. Mechanism inside the Apaisant Comb.

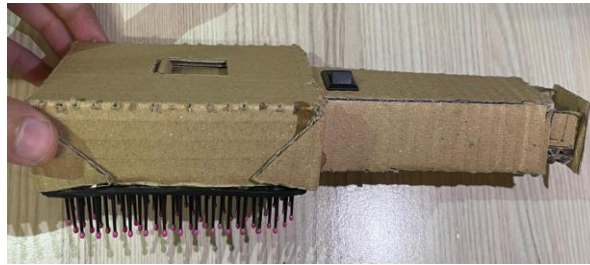


Figure 2. Prototype of Apaisant Comb.

The Apaisant Comb is design to serve the consumers with vibrating element for massaging the scalp and nourishing the scalp with the serum stored in the hairbrush. The hairbrush is come with ON/OFF switch to activate the vibrator and the tiny tank of serum will be activated by mechanical part placed at the handle of the hairbrush. The hairbrush is powered by 2 units of AA batteries with 3V supply while the serum is applied straight to the scalp using the little tips of hairbrush's teeth. Figure 1 shows the mechanism inside the Apaisant Comb while the prototype of Apaisant Comb is shown in Figure 2.

3. RESULTS AND DISCUSSION

The innovative tool combines a standard hairbrush with a discreet, portable vibrator and an oil delivery system. This distinctive combination provides consumers with a multipurpose gadget that improves self-care routines. Apaisant Comb has an array of vibrators that are supposed to assist consumers decrease headaches by gently massaging their heads. This is because the action of the vibrators in the brush can assist to smooth out blood flow and lower the activity of the trigger point at the user's head, which is the source of the headache. Besides, having smooth blood circulation may help people relax while also improving hair growth and preventing hair damage. The brush's design incorporates a reservoir for holding essential oils or hair serums, which may be dispersed via the brush's teeth for simple application while massaging the scalp. In general, serum is required to smooth, encourage hair growth, and maintain the health of an individual's hair. However, the incorrect application method used by individuals today, which is to apply the serum to their hair rather than straight to the scalp, renders their efforts at preserving the healthiness of their hair ineffective. The Apaisant Comb, which retains the serum, can assist people by applying the serum more efficiently by brushing their hair with a tiny amount of serum is uniformly distributed around their scalp while at the same time can massage the scalp by activate the vibrator function. Furthermore, the form of this brush, which has an ergonomic handle, allows the user to hold the brush easier. Based on the positive comments received during Apaisant Comb's initial appearance in the invention competition, about 95 percent of visitors agreed that the vibrator was quite pleasant and did not cause scalp pain. The inclusion of an integrated oil pouring mechanism in the comb is quite enticing and may sell rapidly if it becomes available, since visitors sincerely hope the comb will be available at a reasonable price. Visitors also anticipate the Apaisant Comb to be produced in a range of color options, as well as smaller for portability.

4. CONCLUSION

Apaisant Comb, a multipurpose brush to help maintain healthy hair and scalp is designed to help busy people to maintain their hair and scalp health. It has an array of vibrators that are supposed to assist consumers decrease headache and promoting hair growth by smooth out blood flow and lower the activity of the trigger point at the user's head. At the same time, it can assist people by applying the serum more efficiently by brushing their hair with a tiny amount of serum and uniformly distributed around their scalp. However, there is still have a wide room of improvement for this product before it is ready to commercialize. One of the improvements that can be done is by adding the infrared light to treating a scalp by penetrate the infrared directly into it which can effectively improve the blood circulation and hair growth. Besides, the vibrator side can be improved by designing a hairbrush with various intensity of vibration. For easy carry, the power source can be replaced by rechargeable battery via USB port charger.

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