March 27, 1928. 1,664,168

T. S. HARRIS

SCALP TREATING APPLIANCE

Filed Sept. 15, 1926

Fig. 1.

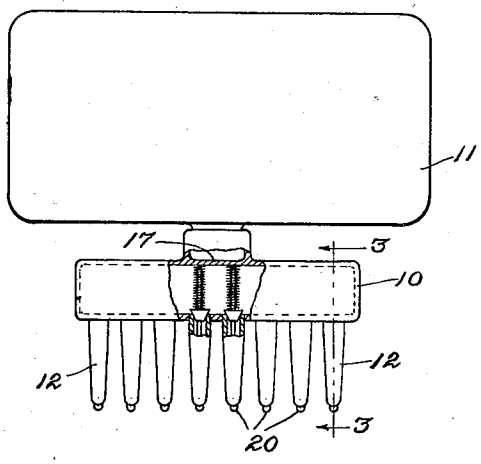
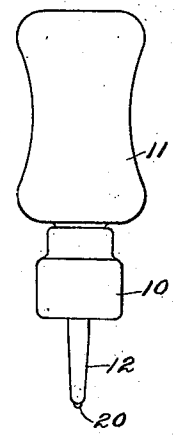


Fig. 2.



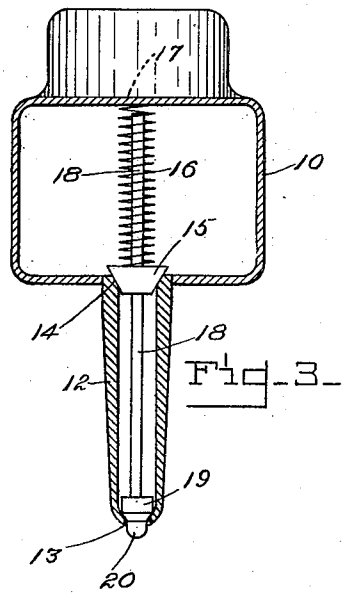


Fig. 3.

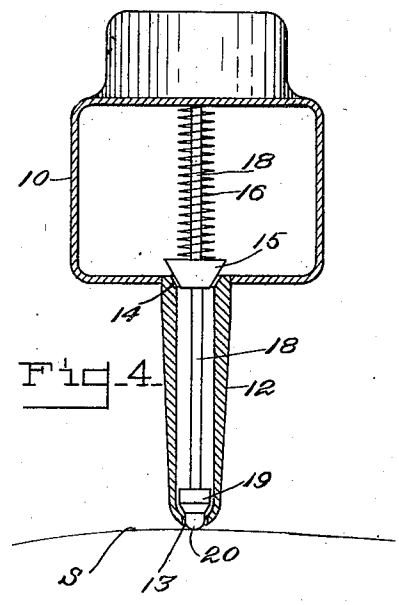


Fig. 4.

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UNITED STATES PATENT OFFICE.

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SCALP-TREATING APPLIANCE.

Application filed September 15, 1926. Serial No. 135,584.

This invention relates to devices of the type generally known as fountain combs intended for the purpose of applying medicaments or other liquids to the scalp directly at the roots of the hair and without otherwise soiling the hair or hands. A device of this character usually comprises a fountain or reservoir for the liquid and a suitable number of hollow teeth communicating with the reservoir at their inner ends and having outlet openings at their outer ends, suitable valves being employed for preventing the discharge of the liquid from the teeth except when the latter are brought into engagement with the scalp.

In a device of this kind, the more or less sharp edges about the discharge openings at the ends of the teeth sometimes cause injury to the scalp unless the device is carefully used, although some pressure of the device against the scalp is in many instances desirable for purposes of massage. The present invention has for its object to provide simple means for preventing the sharp edges of the teeth from coming into direct contact with the scalp at any time, thereby permitting the vigorous application of the device without danger of injury to the scalp.

The foregoing and other objects of the invention, together with means whereby the latter may be carried into effect, will best be understood from the following description of a preferred form thereof illustrated in the accompanying drawings. It will be understood however that the particular construction described and shown has been chosen for purposes of exemplification merely, and that the invention, as defined by the claims hereunto appended, may be otherwise embodied without departure from the spirit and scope thereof.

In said drawings:

Fig. 1 is a side elevation, partly broken away, and Fig. 2 an end elevation of the complete device.

Fig. 3 is an enlarged section taken substantially on the line 3—3, Fig. 7, showing the device in normal or inoperative position.

Fig. 4 is a similar view illustrating the device in use.

The appliance shown comprises a hollow header or reservoir 10 adapted to receive liquid from a suitable bottle or container 11 which may, as shown, be connected with the header or reservoir 10 in such a manner as to feed liquid thereinto, or, if preferred, the reservoir 10 may be made of sufficient capacity to hold the desired quantity of liquid and may be provided with a suitable filling opening. Projecting from the reservoir 10 are hollow teeth 12 of any suitable number, said teeth communicating at their inner ends with the interior of the reservoir and having at their outer ends discharge openings 13. In the construction shown, the inner ends of the teeth 12 are formed with valve seats 14 to receive valves 15 which control the flow of fluid from the reservoir through the teeth, said valves being seated by springs 16 interposed between said valves and the opposite wall of the reservoir 10. When, as shown in Figs. 1 and 2, the reservoir 10 is fed by a container 11, the opening between said reservoir and container may, if necessary, be intersected by a bridge 17 (Fig. 1) to serve as an abutment for the springs 16 corresponding to the teeth 12 immediately opposite said opening. Each valve 15 is provided with a coaxial stem 18 which extends inwardly into the reservoir 10 and outwardly to the outer end of the teeth 12, being provided at its outer end with a combined centering and operating member 19. Said member 19 is formed with a centering enlargement within the tooth and with a rounded scalp engaging portion 20 which projects through the discharge opening 13. At its inner end the stem 18 is extended into proximity to the opposite wall of the reservoir 10, or to the bridge 17 as the case may be, thereby limiting the inward movement of the stem and valve, the amount of clearance provided being just sufficient to permit the valve to open but being insufficient to permit the complete retraction of the scalp engaging member 20 into the opening 13.

Normally, and when the device is not in use, the valves 15 are held seated by the springs 16 as shown in Fig. 3. When the device is applied to the surface S of the scalp, as shown in Fig. 4, engagement of the members 20 with said surface will cause the valves 15 to be unseated, thereby permitting the flow of liquid through the teeth 12 and from the discharge openings 13 to the scalp. Since, however, the inward movement of the valve stems 18 is limited, the scalp engaging members 20 will, even in their innermost positions, project slightly from the

ends of the teeth 12, thereby preventing the latter from directly engaging the scalp. Since the members 20 are smooth and rounded, considerable pressure may be applied to the device without danger of injury to the scalp.

Having thus described my invention, I claim:

1. In a scalp treating appliance, the combination with a reservoir and a hollow tooth communicating with said reservoir and having a discharge opening, of means for preventing the end of said tooth from directly engaging the scalp.

2. In a scalp treating appliance, the combination with a reservoir and a hollow tooth communicating with said reservoir and having a discharge opening, of means located in said discharge opening for preventing the end of said tooth from directly engaging the scalp.

3. In a scalp treating appliance, the combination with a reservoir and a hollow tooth communicating with said reservoir and having a discharge opening, a rounded scalp-engaging member projecting through said discharge opening for preventing the end of said tooth from directly engaging the scalp.

4. In a scalp treating appliance, the combination with a reservoir and a hollow tooth communicating with said reservoir and having a discharge opening, of a valve for controlling the flow of fluid from said reservoir through said tooth, and means for opening said valve and for preventing the end of said tooth from directly engaging the scalp.

5. In a scalp treating appliance, the combination with a reservoir and a hollow tooth communicating with said reservoir and having a discharge opening, of a valve for controlling the flow of fluid from said reservoir through said tooth, said valve having an operating stem provided with a rounded scalp-engaging member projecting through said discharge opening, and means for limiting the inward movement of said stem to an amount insufficient to permit the complete retraction of said member into said opening.

In testimony whereof I affix my signature.

THOMAS STEWART HARRIS.