H. F. BEYERMANN.

FOUNTAIN HAIRBRUSH.

APPLICATION FILED MAR. 28, 1921.

1,413,384. **Patented Apr. 18, 1922.**

Fig. 1.

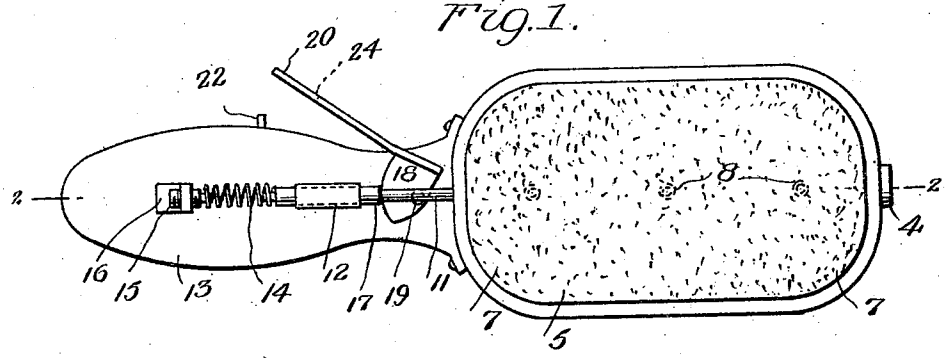


Fig. 2.

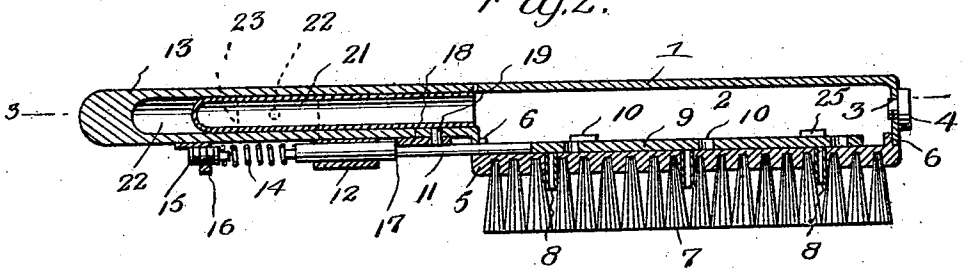
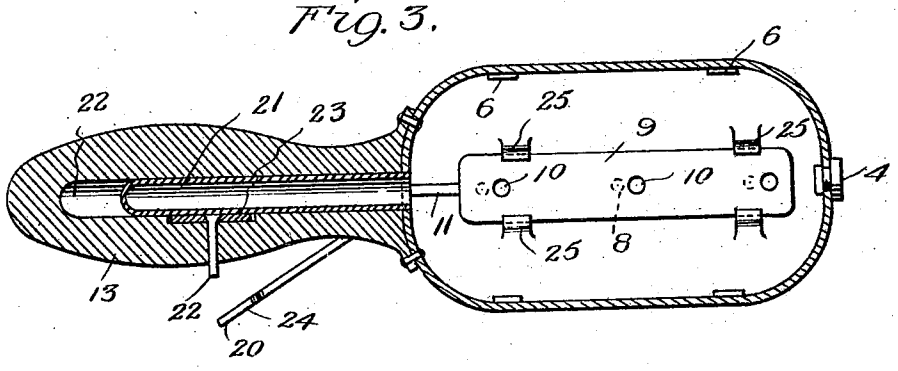


Fig. 3.



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FOUNTAIN HAIRBRUSH.

1,413,384. Specification of Letters Patent. Patented Apr. 18, 1922.

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To all whom it may concern:

Be it known that I, HUGO F. BEYERMANN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Fountain Hairbrushes, of which the following is a specification.

This invention relates to fountain brushes and an object of the invention is to provide a brush particularly adaptable for applying tonic, liquid shampoo or analogous liquids to a person's scalp.

Another object of the invention is to provide a brush construction which is designed to permit thorough and efficient application, to the scalp of a person, tonic, shampoo or the like, which brush structure comprises a reservoir adapted to contain a limited quantity of the liquid to be applied which reservoir has outlet through a plurality of tubes placed amongst the bristles of the brush, to provide a valve structure for controlling the outlet of liquid through said tubes and also to provide means for forcing or urging the liquid outwardly through the tubes.

Other objects of the invention will appear in the following detailed description and in the accompanying drawing wherein:

Fig. 1 is a bottom plan of the improved fountain brush.

Fig. 2 is a longitudinal section through the fountain brush taken on the line 2—2 of Fig. 1.

Fig. 3 is a longitudinal horizontal section through the improved fountain brush.

Referring more particularly to the drawing, wherein like characters indicate like and corresponding parts throughout the several views, the brush includes a back 1 which is hollow as at 2 to provide a receptacle for retaining a limited quantity of tonic, liquid shampoo or the like. The reservoir 2 is charged through the opening 3 which is normally closed by a removable plug 4. The bristle carrying plate 5 of the brush structure is provided with inwardly extending clips or flanges 6 by means of which it is securely attached to the brush back 1. The bristle carrying plate 5 may be formed of any suitable material, and carries a plurality of bristles 7 to provide a brush similar to any approved type of hair brush. A plurality of relatively small tubes 8 extend through the plate 5 and have their outer ends terminating short of the outer ends of the bristles to prevent contact of the tubes with the head of the person upon which the brush is used. The tubes 8 are adapted to dispense the tonic or other liquid contained in the reservoir 2 amongst the bristles 7 to permit thorough application of the liquid to the scalp. The liquid is prevented from passing through the tubes 8 when the brush is not in use by a sliding valve plate 9 which is provided with a plurality of elongated or oval shaped openings 10 adapted to register with the tubes 8 to permit the passage of liquid through the tubes. The valve plate 9 has a stem 11 formed thereon which projects out of the brush back 1 and is slidably carried by a suitable guide 12 on the handle 13 of the brush. A spiral spring 14 engages the outer end of the stem 11 and normally urges the stem inwardly to move the opening 10 out of registration with the tubes 8. The tension of the spring 14 may be regulated by adjustment of a set screw 15 carried by a suitable bracket 16 on the handle 13. The valve stem 11 has a shoulder 17 formed thereon against which a cam 18 engages. The cam 18 is pivotally supported as shown at 19 upon the handle 13 and it has an operating handle 20 formed thereon, the flat surfaces of which are positioned at right angles to the flat surfaces of the handle 13. The movement of the handle 20 towards the handle 13 of the brush will rotate the cam 18 and urge the valve stem 11 and valve plate 9 outwardly against the tension of the spring 14 to move the openings 10 into registration with the tubes 8.

To insure the dispensing of the liquid from the reservoir 2 through the tubes 8, a resilient receptacle 21 is positioned in the recess 22 formed in the handle 13. The resilient receptacle 21 is preferably formed of soft rubber similar to the receptacles in fountain pens of the self filling type. A pin 22 projects laterally through the seat of the handle 13 and preferably has a head 23 formed thereon and positioned interiorly of the handle, which head engages the receptacle 21. The cam operating handle 20 has a lateral extension 24 formed upon its free end which engages the pin 22 and forces it inwardly, pressing the receptacle 21 and forcing air into the reservoir 2 to cause displacement of the liquid through the openings 10 and tubes 8. Longitudinally extending flanges 25 are struck from or formed upon the bristle carrying plate 5 and form

guides for the longitudinal movement of the valve plate 9. In use, the reservoir 2 is filled with any suitable type of liquid through the opening 3 and when it is desired to apply the liquid to a person's scalp the hair or scalp is brushed in the usual manner during which time the cam operating handle 20 is pressed towards the handle 13 for moving the valve plate 9 to permit passage of the liquid outwardly through the tubes 8. As previously stated the movement of the cam operating handle 20 towards the handle 13 of the brush will compress the resilient receptacle 21 and force the liquid out of the reservoir 2 through the tubes 8 to permit application of the liquid by the bristles 7.

It is, of course, to be understood that the invention may be constructed in various other manners and the parts associated in different relations and, therefore, I do not desire to be limited in any manner except as set forth in the claims hereunto appended.

Having thus described my invention what I claim is:

1. In a fountain brush, a brush back forming a liquid containing reservoir, a bristle carrying plate carried by said back, a plurality of liquid dispensing tubes carried by said plate, a slidable valve plate for preventing dispensing of liquid through said tubes, a valve stem formed on said plate, an operating lever for the valve stem pivotally carried by the handle of said brush, and a cam moved by operation of said operating lever and engaging said stem to move said valve plate into liquid dispensing position.

2. In a fountain brush, a back brush, a handle carried thereby, said brush back being hollow to provide a liquid reservoir, a bristle carrying plate provided with liquid dispensing openings carried by said brush back, a sliding valve plate controlling the passage of liquid through said opening, a valve stem on said valve plate, a cam pivotally carried by said brush handle, an operating lever for said cam movable to move said valve plate into liquid dispensing position, a spring carried by the brush handle and engaging said valve stem for normally urging the valve into closing position relative to said dispensing openings.

3. In a fountain brush, a brush back, a handle, said brush back being hollow to provide a liquid reservoir, a bristle carrying plate provided with dispensing openings, an operating lever, a collapsible receptacle within said handle, a pin positioned in the path of said operation lever whereby the collapsible receptacle will be collapsed by movement of said lever to force liquid through said dispensing openings, and a valve for controlling passage of fluid through said dispensing openings operated by said lever synchronously with collapsing of said receptacle.

In testimony whereof I affix my signature.

HUGO F. BEYERMANN.