J. J. REINHOLZ.

BRUSH.

APPLICATION FILED NOV. 29, 1921.

1,434,844. Patented Nov. 7, 1922.

Fig. 1.

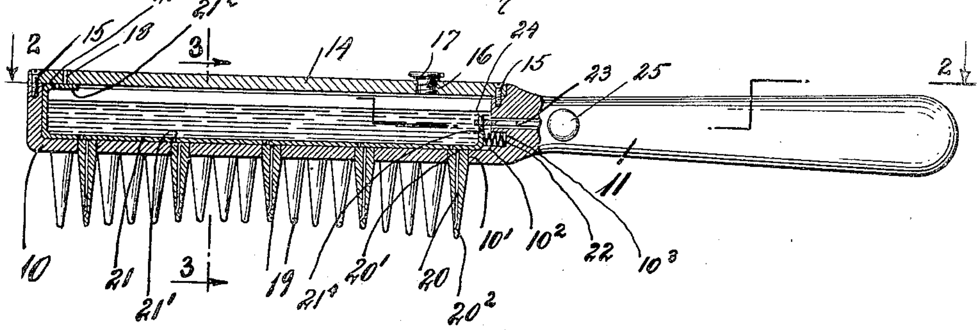


Fig. 2.

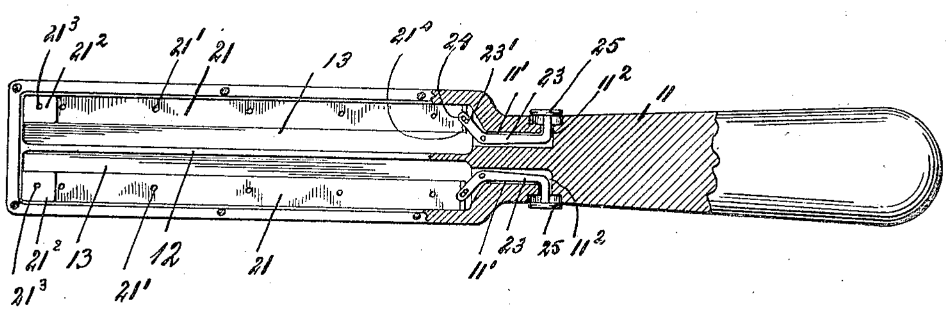
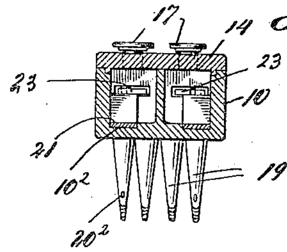


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOSEPH J. REINHOLZ, OF NEW YORK, N. Y.

BRUSH.

Application filed November 29, 1921. Serial No. 518,556.

To all whom it may concern:

Be it known that I, JOSEPH J. REINHOLZ, a citizen of the German Republic, and a resident of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Brushes, of which the following is a specification.

The present invention relates to brushes and has for its object to provide a brush for the treatment of the scalp.

The brush according to my invention comprises a body portion formed with one or more reservoirs which contain liquid substances suitable for the treatment of the scalp, and teeth having valve controlled channels leading from said reservoirs and through which the liquids can be at will discharged onto the scalp during treatment.

My invention will be more fully understood by reference to the accompanying drawing in which similar reference characters denote corresponding parts, and in which, Fig. 1 is a sectional elevation of the brush; Fig. 2 a longitudinal section on line 2—2 of Fig. 1, and Fig. 3 a cross section on line 3—3 of Fig. 1.

Referring to the drawing more in detail, 10 denotes the body portion of the brush and 11 its handle. The body portion 10 is made hollow to form a tank or reservoir to contain suitable scalp treating liquid substances. The tank may be partitioned into separate receptacles, as at 12, each to contain a different substance.

In the present embodiment of my invention the tank is shown divided into two compartments 13. The top 14 of the body portion 10 is removably fixed to the latter by screws 15 or the like, and is provided with charge openings 16 normally closed by plugs or stoppers 17. At its forward end, the top 13 is provided with air holes 18 for each compartment. Projecting from the bottom of the body portion 10 are tooth shaped members 19 the upper ends of which are fixed in holes 10′ made in the body 10. These teeth are provided with capillary bores, ducts or channels 20 extending centrally and longitudinally of said teeth with their inner ends 20′ opening into the compartments or chambers and their outer ends 20^2 terminating a short distance above the lower ends of said teeth and opening to the side of the latter. Slidably borne in grooves 10^2 made in the inner face of the bottom of said compartments are longitudinally extending strips 21 of metal or the like adapted to bear tightly over the parts of the bottom in which the teeth 19 are fixed. These strips are each provided with openings 21′ which are spaced apart to conform with the spacing of the teeth of the corresponding compartment and of a size about equal to the width of the channels 20. In normal position of said slides 21 the openings 21′ are desplaced relative to the inner openings 20′ of the channels 20 and said slides hold the said passages or channels 20 tightly closed. When, however, the liquids are to be discharged from the compartments, the slides are shifted longitudinally until their perforations 21′ are brought to register with the inner ends 20′ of the channels 20. Suitable packing means (not shown) may be provided between the slides 21 and the bottom of the tank to produce a tight closure.

The forward ends of the strips or slides 21 are bent upwardly and horizontally. The horizontal bends 21^2 are adapted through suitable packing means (not shown) to tightly bear against the inner face of the top 14 and to extend over that portion of the top in which the air holes 18 are arranged. The horizontal portions 21^2 of said slides are provided each with an opening 21^3 which when the slide is displaced into open position will be brought in register with the corresponding air hole 18 to admit air into the compartments and thereby permit the liquids to flow from the latter into the passages 20. The rear end 21^4 of each slide is also bent upwardly and bears against a spring 22 mounted in a groove 10^3 provided in the rear wall of each compartment. These springs 22 tend to shift the slides 21 forwardly, and retain them in closing position.

For the operation of the slides I provide a bell crank lever 23 for each slide. These bell crank levers are mounted in grooves 11′ of the handle 11 and are fulcrumed therein. The forward arm of each bell crank lever is slotted as at 23′ to engage a pin 24 which projects from the rear end 21^4 of each slide. The rearward ends of said bell crank levers are bent laterally and extend outwardly through cross grooves 11^2 leading from the longitudinal grooves 11′ and carry knobs 25 or the like for facilitating the operation of the slides.

Normally the slides 21 are positioned so as

to close the upper ends of the passages 20 and also the air holes 18. When it is desired to discharge a liquid from one or another compartment or both, the corresponding slides are shifted by swinging the levers 23 whereby the openings 21′ in the slides are brought to register with the inner ends of the teeth 19 and the opening 21^3 with the air holes 18. The liquids will then flow through the channel 20 passing outwardly through the sides of the teeth 19. Owing to the arrangement of the lower openings 20^2 at the sides of the teeth, the same will not be clogged while the latter bear on the scalp. The width of the channels 20 is made sufficiently small so that the liquids will be discharged by capillary action in small drops.

It is, of course, understood that the construction may be modified in various ways without departing from the spirit of my invention. I, therefore, do not wish to restrict myself to the details described and shown.

What I claim and desire to secure by Letters Patent is:—

1. In a brush, a body portion formed with a tank divided into compartments to contain different liquids, teeth fixed in the bottom of said brush and having channels leading from said tanks, slides in said compartments to control the flow of the liquid therefrom into the channels and means for operating said slides.

2. In a brush, a body portion formed with a tank divided into compartments to contain separate liquids, a plurality of teeth fixed in the bottom of each compartment and having channels communicating with said compartments, slides movable in said compartments and having passages, said slides being adapted normally to be so positioned that their passages will be displaced relative to said channels and when displaced longitudinally, to bring their passages into register with said channels, and means for operating said slides.

3. In a brush, a body portion forming a tank for liquids and having a removable top, said top having air holes, channeled teeth fixed in the bottom of said tank and the channels of which communicate with the latter, a common valve to control the opening and closing of said channels and air holes and means for operating said valve.

4. In a brush, a body portion formed with a tank divided into compartments to contain different liquids, teeth in said brush having channels leading from said compartments and independently operable valves for controlling the flow of the liquids from said compartments through said channels.

Signed at New York, this 28th day of November, 1921.

JOSEPH J. REINHOLZ.

Witnesses:
MAX D. ORDMANN,
JOSEPH T. MCMAHON.