June 9, 1925. 1,540,863

R. H. RICHARDSON

SCALP SYRINGE

Filed March 22, 1924

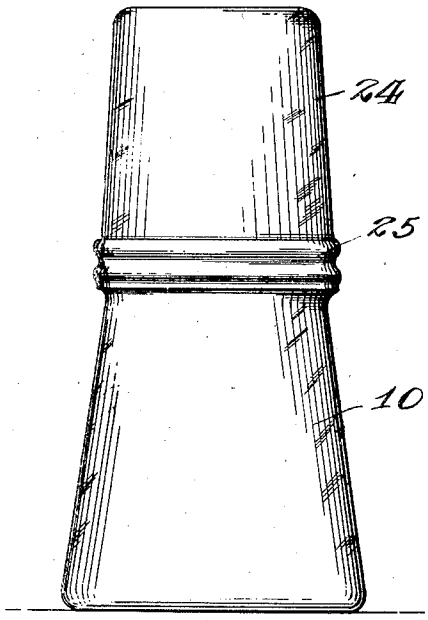


Fig. 1.

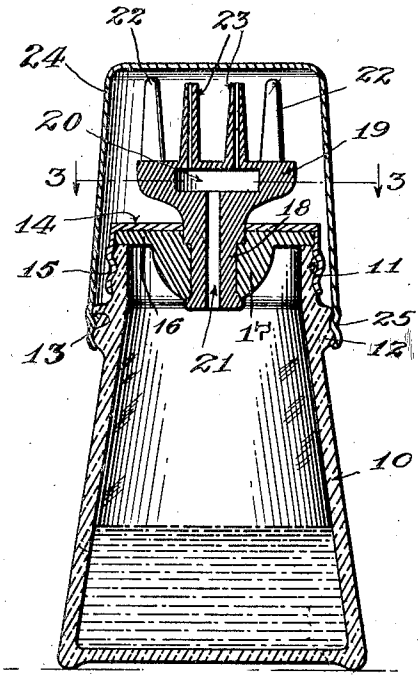


Fig. 2.

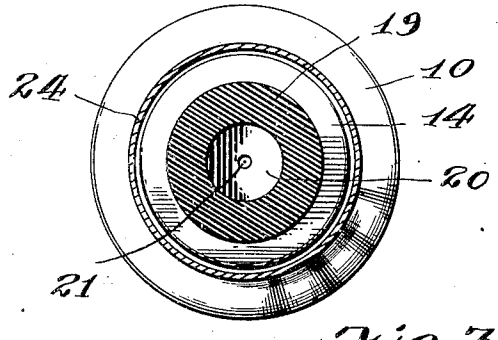


Fig. 3.

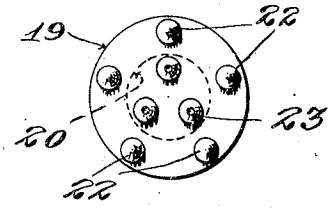


Fig. 4.

WITNESSES

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UNITED STATES PATENT OFFICE.

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SCALP SYRINGE.

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To all whom it may concern:

Be it known that I, ROBERT HANNON RICHARDSON, a citizen of the United States, and a resident of Richmond, in the county of Henrico and State of Virginia, have invented certain new and uesful Improvements in Scalp Syringes, of which the following is a specification.

My present invention relates generally to scalp syringes and more particularly to dispensing bottles having in connection therewith tonic applicators, whose particular use is the application of tonics and like fluids to the scalp for the treatment thereof and of the hair and my primary object is the provision of a simple, economical and highly efficient device for this purpose which will permit of proper thorough distribution of tonic over the entire scalp and through the hair without waste.

It is a well known fact that tonics beneficial to the growth of hair and the general condition thereof as well as of the scalp are somewhat costly and that great waste is occasioned by the manner in which such tonics are ordinarily applied by up-ending the bottle in the hand, then applying the hand to the hair and rubbing the tonic from the hair to the scalp with the fingers. This method is moreover conducive to uneven distribution and is generally ineffective for the purposes for which it is intended.

My invention aims to provide a device by means of which fluid tonics may be applied directly to the scalp, the place where the tonics are needed, through the thickest hair and in an even uniform manner eliminating the waste of the ordinary method.

According to my invention I propose a container having an applicator in connection therewith and a cover which normally houses the applicator and is susceptible of ready removal in order that the applicator may be used, the container being rigid and the applicator having means to dispense the fluid of the container entirely by gravity so as to insure an even discharge of fluid and also having means of a rigid nature capable of penetrating the thickest hair so that the fluid thus dispensed may be evenly applied to the scalp itself where it is needed.

In the accompanying drawing which illustrates my present invention and forms a part of this specification,

Figure 1 is an elevation showing my improved device complete,

Figure 2 is a vertical section taken substantially on a central line through the device shown in Figure 1,

Figure 3 is a horizontal section therethrough taken substantially on line 3—3 of Figure 2, and

Figure 4 is a top plan view of the applicator removed.

Referring now to these figures my invention proposes a container 10 which is preferably convenient for upending and grasping in the hand, and which has a full open upper end with external threads 11 adjacent to its said upper end and with an annular enlargement 12 below the threads, the said enlargement being also threaded as at 13.

The upper open end of the container 10, which is of a rigid nature throughout, is closed by a cap 14 having a threaded flange 15 which engages the threads 11 of the bottle, and this cap has a central opening and is provided with a washer 16 snugly seated therein for engagement with the upper end of the rim of the bottle or container and in turn provided with a central enlargement or boss 17. This boss has a central opening of slightly smaller dimensions than the central opening of the cap 14, to receive the axially bored stem 18 of the applicator which projects through the cap opening and is snugly engaged and held in place by the boss 17.

The body of the applicator, indicated at 19, has a central chamber 20 in connection with one end of the axial bore 21 of its stem 18, the opposite end of which bore 21 is in open communication with the interior of the bottle or container 10. The outer surface of the applicator body 10, turned away from the bottle or container, is flat and has projecting therefrom adjacent to its peripheral edge a series of outstanding prongs or teeth 22 of solid formation, which slightly taper and are rigid throughout. Within this outer annular series of teeth 22, there project from the outer surface of the applicator body several similarly rigid teeth or prongs 23, the latter having small axial openings extending throughout their length, whose inner ends open into the chamber 20, these applicator teeth 23 being slightly shorter than the solid teeth 22 as will be seen by reference to Figure 2 so that with

the outer ends of the outer teeth 22 resting against the scalp the tonic may flow from the container 10 when inverted, through the bore 21, chamber 20 and the small axial channels of the applicator teeth 23 and freely from the outer ends of the latter onto the scalp entirely by gravity.

My invention also proposes a cover 24 constructed to surmount the applicator when the device is not in use, this cover being of generally cylindrical form closed at its top and having its lower edge threaded as at 25 to engage the threads 13 of the annular enlargement 12 of the container 10 thus entirely covering the upper end of the container and the parts carried thereby so as to prevent loss by evaporation between periods of use as well as to prevent the entrance of dust, dirt or other foreign matter which might clog the applicator teeth 23 as well as contaminate the supply of tonic within the device.

When it is desired to use the device assuming a supply of tonic within the container or bottle 10, the cover 24 is unscrewed and removed and the container is inverted in the hand and the applicator placed upon the head and moved across and around the scalp, during which the rigid outstanding prongs or teeth 22 pass through the thickest hair in close contact with the scalp so as to thus part the hair permitting the outer ends of the applicator teeth 23 to pass closely adjacent to the scalp as the device is moved thereover so that there will be free uniform dispensing of the tonic directly to the scalp where it is needed and desired, entirely by gravity from the bottle or container. In this way full effectiveness is obtained in the use of tonics and the like for the treatment of the hair and scalp, without waste of the fluid.

I am aware that similar devices have been before proposed with flexible containers from which the fluid is forced by pressure and employing flexible dispensing prongs, but these are neither economical in use nor are they efficient from the standpiont of either economy or the uniform application of the fluid.

It will be noticed that while the scalp is being properly treated with tonic through the ample moistening of the same there is at the same time a mininum moistening of the hair itself above the roots and scalp. At the same time my improved device places tonics to the base of the hair and into the hair cells of the scalp.

I claim:

1. A scalp syringe including a rigid container having an upper open end, a cap removably engaged with the upper open end of the container, having a central opening and an inner washer seated against the container around its opening, provided with an enlarged central portion, the cap and the central portion of the washer having alined openings, an applicator having a body portion and a stem extending from one side of the body portion through the openings of the cap and the washer and provided with an axial bore opening at one end into the container, said washer embracing and holding the stem in position and said applicator body having a chamber in communication with the outer end of the stem bore, an annular series of elongated rigid teeth projecting from the opposite side of the applicator body adjacent to its edge, and a series of rigid applicator teeth projecting from the applicator within the first named series of teeth, said applicator teeth being of slightly less length than the first mentioned teeth and having small axial feed channels extending entirely therethrough and communicating at their inner ends with the chamber of the applicator body.

2. A scalp syringe including a rigid container having an upper open end, an applicator having its body portion provided with a feed chamber therein and having a stem projecting from one side of said body having a bore communicating at one end with the interior of the container and at its opposite end with the said chamber, a cap closing the upper end of the container and having means to detachably support the said applicator, and a series of rigid teeth of elongated tapering form projecting from the applicator body away from the container, certain of said teeth having axial feed channels extending therethrough from the chamber of the body and being of slightly less length than the other teeth of the series as described.

ROBERT HANNON RICHARDSON.