

March 23, 1954

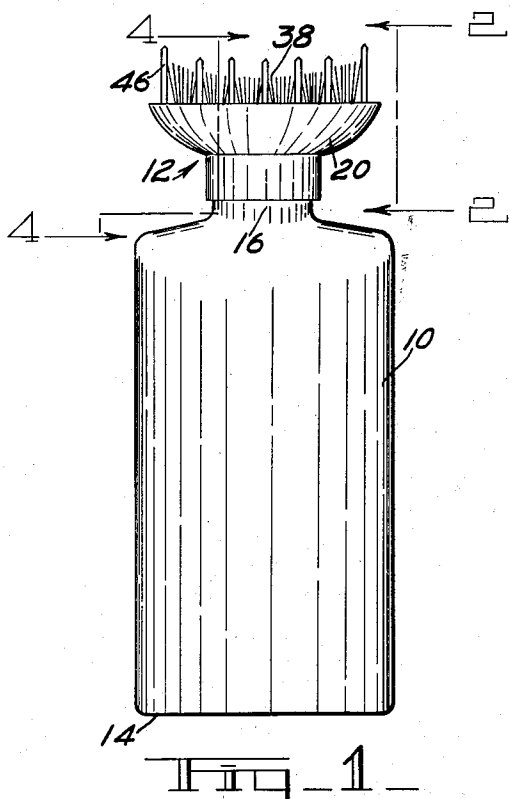
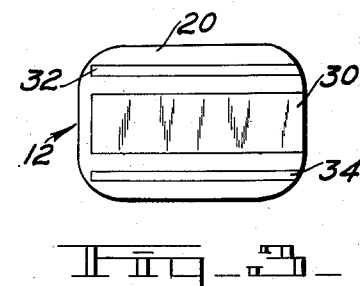
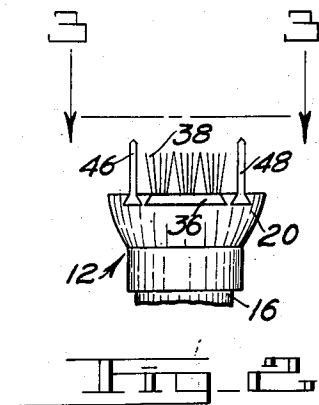
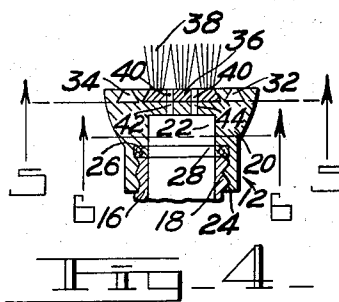
S. KOVACS

2,672,875

APPLICATOR

Filed Jan. 29, 1952

2 Sheets-Sheet 1



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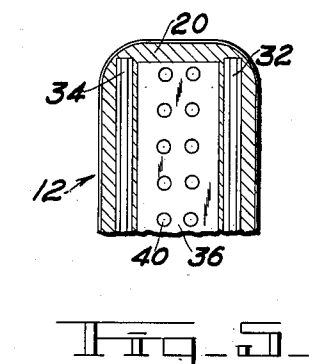
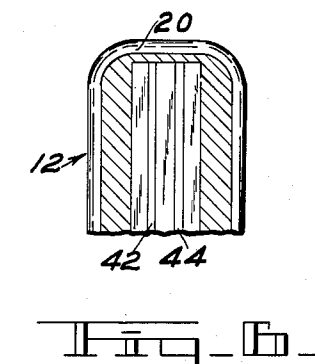
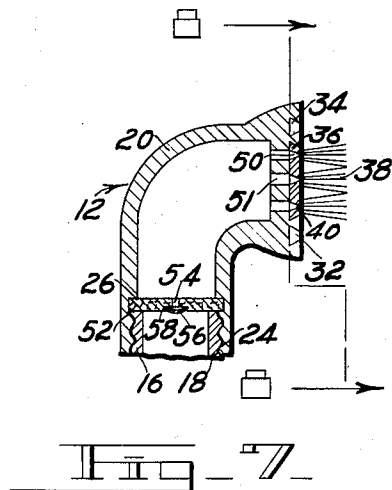
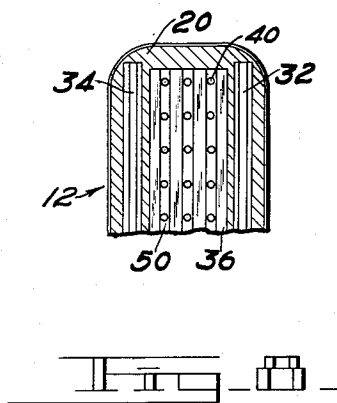
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S. KOVACS
APPLICATOR

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2 Sheets-Sheet 2



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2,672,875

APPLICATOR

Stella Kovacs, Dearborn, Mich.

Application January 29, 1952, Serial No. 268,813

3 Claims. (Cl. 132-13)

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The invention disclosed herein related to applicators generally, and more particularly to fluid applicators of the type adapted for use in dispensing hair preparations. This application is a continuation in part of my patent application, Serial No. 196,456, filed November 18, 1950 for a "Self-Contained Liquid Applicator."

It is today a recognized fact that hair dyes and bleaches are used extensively as standard beauty aids in virtually all beauty salons and by an ever increasing number of individuals or amateurs. At present, however, the successful application of either a dye or a bleach to the hair is a somewhat delicate operation, and requires considerable technique.

This situation is the result of the antiquated equipment and cumbersome methods employed to perform the operation. Equipment, currently in use, generally consists of a small brush or swab by means of which the preparation is transferred from a mixing container to the hair. This method provides the operator with little means for accurately controlling the amount of preparation imparted to the hair.

It is common practice to saturate the swab or brush and deluge the hair so as to insure complete coverage. With this method of application, it is almost impossible to prevent large quantities of the preparation from coming into contact with the scalp of the customer; and on occasion, where a sufficient degree of care is not exercised, the wearing apparel and even the person of the customer is liberally sprinkled.

Therefore, since most dyeing and bleaching agents are rather strong, such practice can be costly to the operator and at times extremely painful to the customer. Fully aware of these shortcomings, and their serious implications, the applicant has, by her invention, provided a self contained applicator, by means of which preparations may be conveniently applied to the hair directly from the mixing container.

Another object of the invention is to provide a fluid applicator having a sensitive means for controlling the flow therefrom.

A further object of the invention is the provision of a fluid applicator which is extremely easy to handle and manipulate.

Yet another object of the invention, is to provide a self-contained fluid applicator which is extremely reliable and relatively inexpensive to produce.

Additional advantages and features of the invention will become apparent after a thorough consideration of a detailed description of the invention, composed with reference to the accompanying drawings comprising a portion of this patent application; and in which:

Figure 1 is an elevation view of an applicator embodying the applicant's invention, showing the contour of both the brush and comb elements.

Figure 2 is an elevation view of the applicator head, taken substantially on plane 2-2 of Fig. 1,

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showing the relative positions of both the brush and comb elements.

Figure 3 is a plan view of the applicator head in Fig. 2, with the combs and brush plate removed, taken substantially on plane 3-3 in Fig. 2, and showing the dove tail retaining slots in the head.

Figure 4 is a section view of the applicator head, taken substantially on plane 4-4 in Fig. 1, showing the fluid openings in both the tufted brush plate and the wall of the housing.

Figure 5 is a section view taken substantially on plane 5-5 in Fig. 4, showing the spaced calibrated openings in the brush plate.

Figure 6 is a section view taken substantially on plane 6-6 in Fig. 4, showing the slots in the wall of the housing.

Figure 7 is a section view similar to that of Fig. 4, showing a modification in construction.

Figure 8 is a section view taken substantially on plane 8-8 of Fig. 7, showing the tapered slots connecting all of the tufts in the brush plate.

For the detailed description of the applicant's invention, reference is now made to Fig. 1 of the drawings, in which numeral 10 designates a resilient container having an applicator head 12 attached thereto. The resilient container 10 is provided with a stable base 14 and an outlet neck 16 having thereon a threaded section 18. The applicator head 12 comprises a housing 20 having therein a downwardly disposed opening 22 provided with a threaded section 24 and an annular seating shoulder 26.

A gasket ring 28 is fitted on the annular shoulder 26 and adapted to enter into a sealing engagement with the upper end of the container neck 16. A centrally disposed dove tail slot 30 flanked by two smaller slots 32 and 34, of similar cross section, are provided in the upper face of the housing 20. A brush plate 36, having arrays of spaced tufts such as 38, is cemented into the central dovetail slot 30. Spaced calibrated openings 40 are provided in the brush plate 36 and adapted to register with a pair of slots 42 and 44 in the upper wall of the housing 20 so as to provide communication between the resilient container 10 and the tufts 38.

The tufts 38 are preferably placed in linear arrays, comprising 1 or more rows as desired, and provided with a concave contour as shown in Fig. 1. A pair of combs 46 and 48 are removably fitted into the smaller slots 32 and 34 in the housing 20. This completes a description of the structural details relating to the embodiment disclosed in Figures 1 through 6. A discussion will now be directed to the modification of the applicant's invention disclosed in Figures 7 and 8.

The modification shown in these last two figures differs from the embodiment previously discussed in several important details. The calibrated openings 40 in the brush plate 36 have been placed under the tufts 38, and decreased considerably in length. The openings 40 in each row are all interconnected by tapered

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grooves 50 in communication with elongated slots 51 in the wall of the housing 20. An impervious disc 52 is used in place of the gasket ring 28, shown in Fig. 4, and has a central orifice 54 covered with a filter 56 held in position by an overhanging annular lip 58.

The applicator head 12, in the modified applicator, is at right angles to the longitudinal axis of the container 10. This mounting angle however, may either be increased or decreased as desired. In all other respects, the modification shown in Figures 7 and 8 is substantially identical, in both structure and operation, to the embodiment disclosed in Figures 1 through 6.

It is possible to adapt a single applicator of the modified type disclosed in Figures 7 and 8 for use with any of the commercial hair preparations. This is accomplished by the simple expedient of selecting a disc 52 with an orifice 54, sized to accommodate the viscosity of the preparation to be dispensed therethrough. In use with the more viscous hair preparations, the short openings 40 in the tufted plate 38 of the modified applicator, are less likely to become clogged with the more viscous hair preparations than the longer openings 40 shown in Figures 1 through 6.

In practice, it has been found that several of the commercial preparations produce a fine sediment or sludge, which if permitted to enter the small openings 40 in the brush plate 38, would reduce the flow appreciably. To avoid this undesirable occurrence, a replaceable filter 56 has been provided to cover the supply orifice 54 in the disc 52. Should a collection of sludge on the filter 56 substantially reduce the flow from the head 12 during use, the situation may be corrected readily by merely replacing the filter 56, or flushing it off. Without this means of collecting solids and semi-solids present in the hair preparations, it would be necessary to flush out the entire applicator head 12, an infinitely more time consuming and undesirable task.

This completes the discussion relating to the structural details of the applicant's invention; however, to insure a better understanding of the subject matter involved, a discussion will now be directed to the manner in which the device operates so as to perform its intended function, and accomplish the objectives set forth in the introductory portion of this specification.

In operation, the applicator head 12 is removed from the resilient container 10 and the several ingredients composing the preparation are poured into the container 10 for mixing. The container 10 is then shaken thoroughly to insure a proper mixing of the component ingredients. A strand of hair, not here shown, is then separated out from the head of the user. The applicator is inverted and the brush head 12 placed in contact with the strand of hair. A downward pressure is then exerted, which forces both the comb and brush elements into the hair.

A slight amount of pressure is then exerted on the resilient container 10 so as to force the preparation to flow out on the individual tufts 38 of the brush head 12. The applicator is then moved outward on the strand of hair at a rate of speed necessary to produce the desired results. The concave contour on the tufts 38, as well as the long outer teeth of the comb members 46 and 48, serve to retain the strand of hair in the path of the brush head 12.

The combs 46 and 48 also perform the additional function of aligning the individual hairs, thereby helping to prevent matting and snarling.

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By so doing the preparation can be more effectively and more efficiently applied to the hair. In practice, it may be found desirable to employ a comb of different tooth spacing, or even under certain circumstances eliminating one or both of the combs 46 and 48. The most desirable arrangement will, in every instance depend upon a combination of several factors such as the preferences of the individual operator, and the type of hair involved.

From the foregoing discussion, it is evident that the applicant's structure makes possible the realization of all the objectives previously set forth. The applicant accordingly feels that she has fulfilled a long felt need in the field of cosmetics, and in so doing made a real and extremely valuable contribution to the related art.

However, while the invention was described with specific reference to a limited number of embodiments, it will be appreciated by those skilled in the art that the principles involved are susceptible of numerous other applications.

Therefore, what I claim as new, and wish to secure by Letters Patent is:

1. An applicator comprising a resilient container having an outlet therein, a dispenser head detachably connected to the outlet, such head including a housing having a chamber therein in communication with the container, a member having a calibrated orifice therein removably secured over the outlet of the container, a filter over the calibrated orifice, a tufted plate set in the housing, spaced openings in the tufted plate and elongated slots in the housing providing communication between the spaced openings in the tufted plate and the chamber.

2. An applicator comprising a resilient container having an outlet therein, an impervious gasket over the outlet having a calibrated orifice therein, a removable filter over the orifice, and a dispenser head detachably connected to the outlet, such head including a housing having a chamber therein in communication with the resilient container, a tufted plate set in the housing, spaced openings in the tufted plate, elongated slots in the housing providing communication between the spaced openings in the tufted plate and the chamber and a comb removably set in the housing on at least one side of the tufts.

3. An applicator comprising a resilient container having an outlet therein, an impervious gasket over the outlet having a calibrated orifice therein, a removable filter over the orifice, and a dispenser head detachably connected to the outlet, such head including a housing having a chamber therein in communication with the resilient container, a plate set in the housing, linear arrays of tufts mounted in the plate, such arrays having a longitudinal concave working surface, spaced openings in the plate between the tufts, elongated slots in the housing providing communication between the spaced openings in the plate and the chamber and a comb removably set in the housing on at least one side of the tufts.

STELLA KOVACS.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
D. 86,422	Vetter	Mar. 1, 1932
1,235,404	Wehrsen	July 31, 1917
2,267,498	Foliot	Dec. 23, 1941
2,473,227	Solomon	June 14, 1949
2,617,431	Gaspari	Nov. 11, 1952