



US 20120266907A1

(19) **United States**

(12) **Patent Application Publication**  
**CHAN**

(10) **Pub. No.: US 2012/0266907 A1**

(43) **Pub. Date: Oct. 25, 2012**

(54) **STRUCTURE OF EYELINER APPLICATOR**

(52) **U.S. Cl. .... 132/218; 132/320; 401/198; 401/202**

(57) **ABSTRACT**

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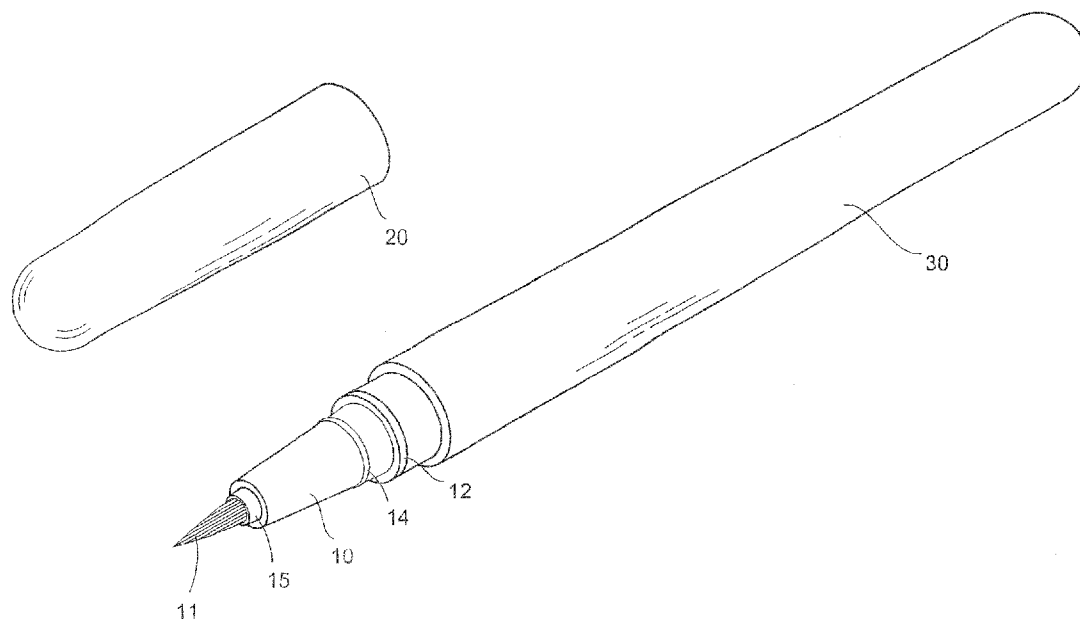
An improved eyeliner applicator comprises a holding tube, an outer cap, and an outer case. The holding tube includes a buffering tube and a liquid feeding core insertedly fixed in the buffering tube. The liquid feeding core has a front end being fitted with a brush tip and a rear end communicating with a chamber of cosmetic liquid. The buffering tube is provided with a plurality of grooves, which communicate with the liquid feeding core via a plurality of through holes such that, when cosmetic liquid fed from the chamber is more than the required, excessive liquid can be diverted to the grooves, when the cosmetic liquid fed from the chamber is less than the required, the liquid stored in the grooves can be sucked back to the liquid feeding core to continuously supply liquid to the brush tip, thereby providing an steady flow to facilitate the operation.

(21) **Appl. No.: 13/091,133**

(22) **Filed: Apr. 21, 2011**

**Publication Classification**

(51) **Int. Cl. A45D 40/26 (2006.01)**



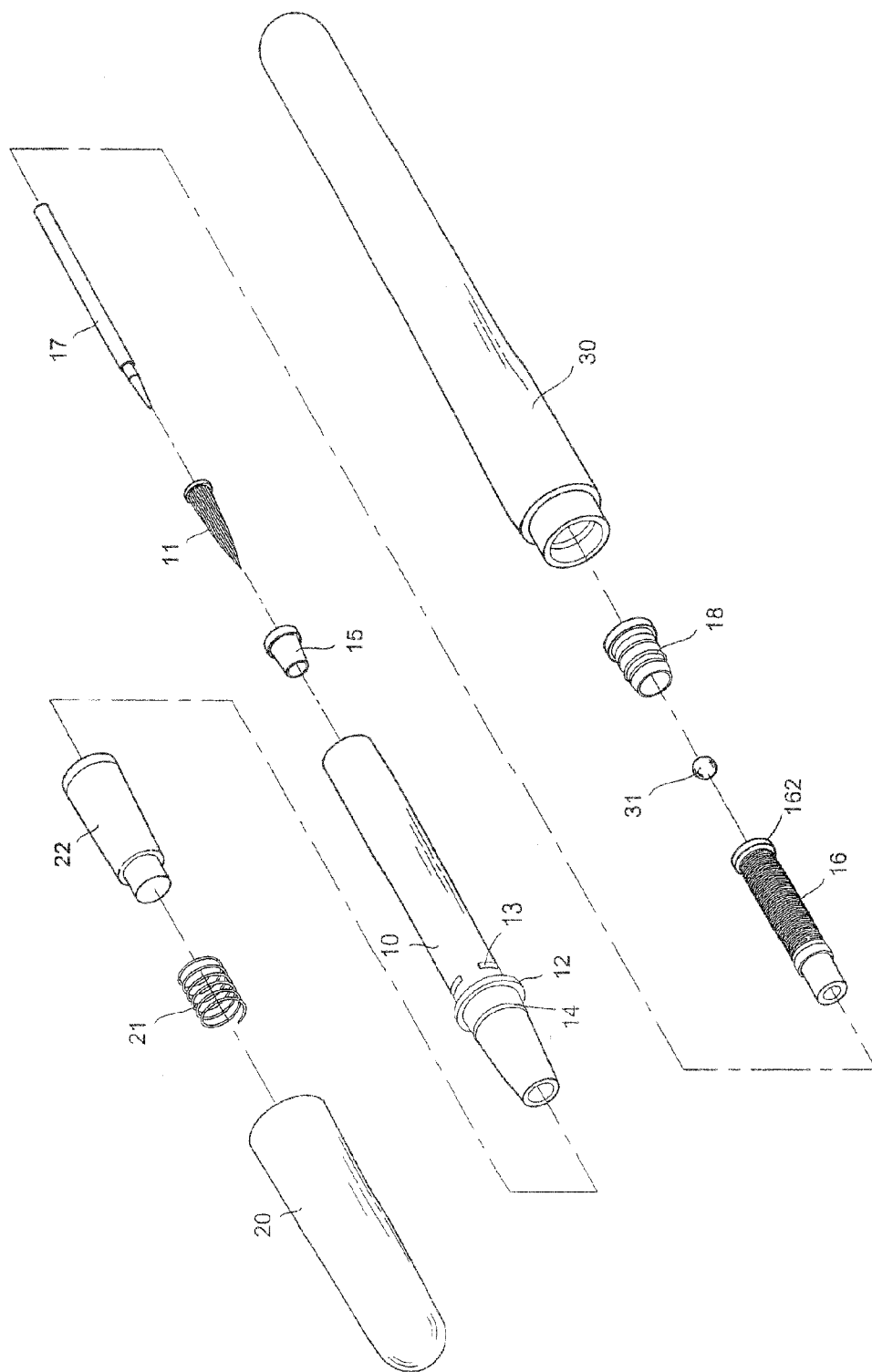


FIG.1

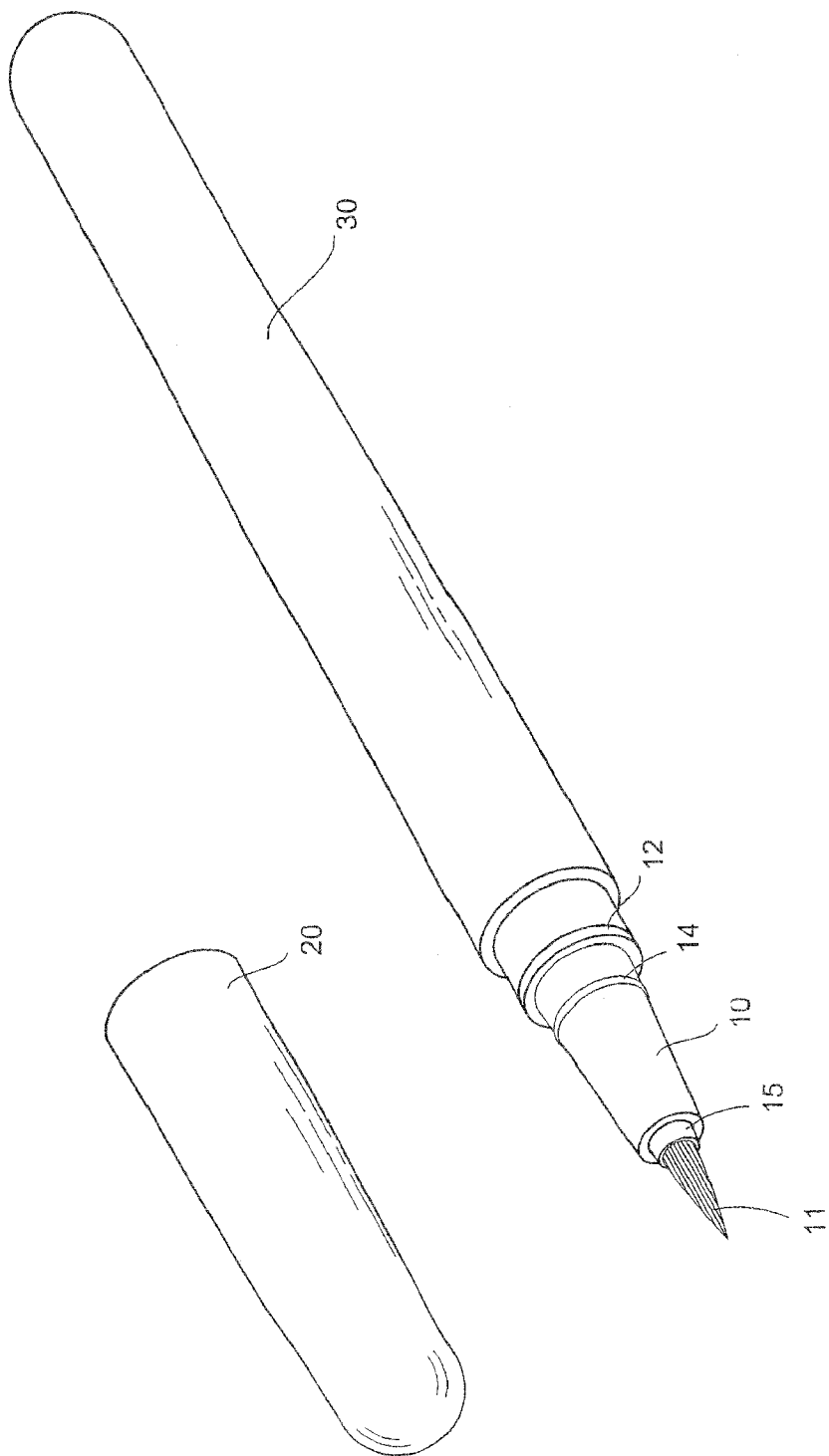


FIG.2

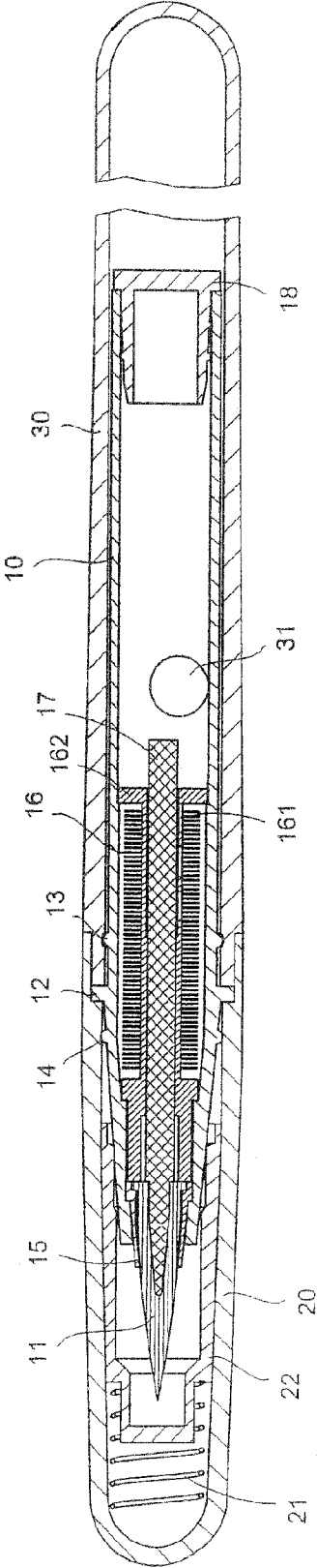


FIG.3

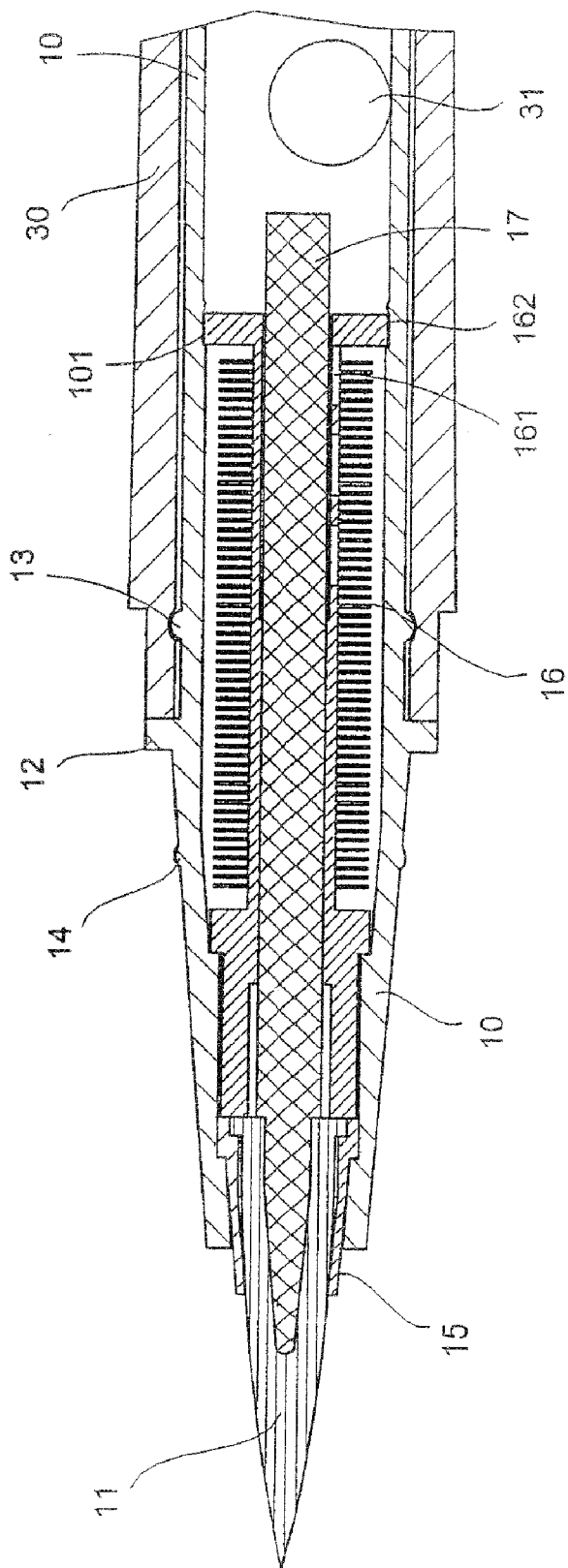


FIG.4

**STRUCTURE OF EYELINER APPLICATOR**

**(A) TECHNICAL FIELD OF THE INVENTION**

[0001] The present invention relates to an improved structure of eyeliner applicator that employs a buffering tube to function as an auxiliary buffer for providing a steady supply of cosmetic liquid to facilitate the operation and assure the effect of the makeup of outlining the eyes.

**(B) DESCRIPTION OF THE PRIOR ART**

[0002] Eyeliner is a cosmetic used to define or outline the eyes. The structural design for eyeliner is similar to the design for a pen, in which a tube for storing cosmetic liquid is provided, and a liquid feeding core is provided to connect with the tube to draw cosmetic liquid therefrom and feed cosmetic liquid to a tapered brush tip to define or outline the eyes. When the core draws excessive cosmetic liquid, careful operation will be conducted to prevent an oversized outlining. When the core draws inadequate liquid, a discontinuity of cosmetic liquid supply may occur. Thus, it is difficult for a user to obtain an ideal results in a makeup.

[0003] It is found that the principle cause in failing to meet the practical requirement for the makeup of outlining the eyes resides in that the cosmetic liquid cannot be fed adequately or steadily during the makeup. Thus, if the cosmetic liquid can be fed adequately or steadily, the overall effect of the makeup will be greatly improved. To meet the requirement for a makeup of outlining the eyes, there is a need to improve the conventional applicators of eyeliners, and this is the primary object of the present invention.

**SUMMARY OF THE INVENTION**

[0004] The applicant of the present invention is a professional manufacturer, who understands the drawbacks of the existing eyeliners in practical applications. Based on long-term experiences and constant efforts on the research of the cosmetic products, the applicant has contrived an improved eyeliner applicator that can remove the drawback of uneven liquid supply existed in the conventional devices. In the present invention, a buffering tube with spaced grooves is employed to cooperate with a liquid feeding core such that the spaced grooves of the buffering tube are functioned as an auxiliary storage of cosmetic liquid in cooperation with a main storage of cosmetic liquid. Thereby, the cosmetic liquid fed from the main storage can be adjusted by the grooves of the buffering tube in practical applications, so as to solve the drawback of the conventional devices.

[0005] The primary object of the present invention is to provide an improved eyeliner applicator, wherein a buffering tube with spaced grooves is mounted in the applicator to cooperate with a liquid feeding core to adjust the cosmetic liquid in the liquid feeding core so as to obtain a steady or adequate flow of liquid supply and facilitate the operation so that the effect of the makeup of defining the eyes can be assured.

[0006] Other objects, advantages, and novel features of the present invention will become more apparent from the following detailed description when taken in conjunction with the accompanying drawings.

**BRIEF DESCRIPTION OF THE DRAWINGS**

[0007] FIG. 1 is an exploded view of an eyeliner applicator according to the present invention.

[0008] FIG. 2 is a 3-dimensional view of the eyeliner applicator according to the present invention.

[0009] FIG. 3 is a plan view of the assembly of the eyeliner applicator according to the present invention.

[0010] FIG. 4 is a partially enlarged view of the assembly of the eyeliner applicator according to the present invention.

**DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

[0011] To allow the features and usefulness of the present invention to be more easily understood, a detailed description will be taken in conjunction with the accompanying drawings.

[0012] The present invention relates to an improved structure of eyeliner applicator, as shown in FIGS. 1-4, which generally comprises a holding tube 10, an outer cap 20, and an outer case 30. The holding tube 10 is a hollow container, which can be filled with cosmetic liquid. The outer cap 20, which includes a spring 21 and a plastic sleeve 22, can be fitted to the holding tube 10 so as to enclose and protect a brush tip ii when the applicator is not in use.

[0013] The improvement of the present invention resides in that the holding tube 10, of being elongated shape, has a tapered portion at a front end thereof. A collar 12 is formed at a rear end of the tapered portion. The holding tube 10 has an extending portion at a rear end thereof, in which a chamber for storing cosmetic liquid is defined. The holding tube 10 is provided with one or more first protrusions 13 at a periphery thereof to be snugly fitted in an outer case 30, which is in flush engagement with the collar 12 of the holding tube 10. The outer case 30 can be designed to be gripped firmly and comfortably or have an aesthetic appearance. The holding tube 10 is further provided with one or more second protrusions 14 such that the outer cap 20 can be snugly fitted to the holding tube 10 to enclose the brush tip 11 at the front end of the holding tube 10.

[0014] Furthermore, before assembling the outer case 30, the holding tube 10 is sequentially fitted with a sleeve 15 and the brush tip 11, wherein the tapered sleeve 15 extends from the front end of the holding tube 10 at a predetermined length, the brush tip 11 is fitted in the sleeve 15 and extends from the sleeve 15 for use in a cosmetic application.

[0015] A buffering tube 16 is fitted within the holding tube 10 to engage with a rear end of the brush tip 11. The buffering tube 16, defining a central through hole, is provided with fins along a periphery thereof to define a plurality of grooves between the fins. A plurality of through holes 161 are defined between the periphery and the central through hole of the buffering tube 16. A liquid feeding core 17, being made of absorbent cotton, is insertedly fixed in the central through hole of the buffering tube 16 and has a tapered end to be fitted into an interior of the brush tip 11. The buffering tube 16 has a flange 162 formed at a rear end thereof; which can hermetically engage with an annular groove 101 defined on a surface of the central through hole of the buffering tube 16. The flange 162 is formed as a partition between a liquid storing space, which is the chamber in the extending portion of the holding tube 16 for storing cosmetic liquid, and a liquid feeding space. In the chamber, a rolling ball 31 is placed to stir the cosmetic liquid so as to increase the fluidity of the cosmetic liquid. A plug 18 is sealed to the rear end of holding tube 10 to form the aforementioned chamber. The outer case 30 is employed to encase the holding tube 10 to facilitate a grip of the applicator.

[0016] The improvement of the present invention resides in that: a buffering tube 16 is provided in the holding tube 10 wherein the liquid feeding core 17 is insertedly fixed in the central through hole of the buffering tube 16; the buffering tube 16 is provided with fins along a periphery thereof to define a plurality of grooves therebetween and a plurality of through holes 161 between the periphery and the central through hole of the buffering tube 16; whereby, when cosmetic liquid fed from the chamber is more than a demand required in the brush tip 11, excessive liquid can be diverted to the grooves between the fins of the buffering tube 16, being functioned as an auxiliary storing area, via the through holes 161 of the holding tube 16, such that the buffering tube 16 can adjust the liquid flow in the liquid feeding core 17 to assure the brush tip 11 to supply an adequate amount of cosmetic liquid, and thus avoid excessive output of cosmetic liquid, which will cause the effect of iridescent diffusion or uneven thickness of lines in a makeup, so as to achieve the best results; on the contrary, when the cosmetic liquid fed from the chamber is less than a demand of the brush tip 11, the liquid stored in the grooves of the buffering tube 16 can be sucked back to the liquid feeding core 17 to continuously supply the cosmetic liquid to meet the demand of the brush tip 11. The buffering tube 16 is functioned as an adjusting buffer that can assure an adequate flow of cosmetic liquid to facilitate a makeup of outlining the eyes. In additional to the useful function, the present invention exhibits an aesthetic appearance through a combination of the outer cap 20 and the outer case 30.

[0017] In light of the foregoing, the eyeliner applicator of the present invention employs a buffering tube with spaced grooves in cooperation with a liquid feeding core to adjust the liquid flow in the liquid feeding core to supply adequate liquid for a makeup of defining eyes. It is believed that the present invention is a useful design with novel features.

[0018] Although the present invention has been described with a certain degree of particularity, it is understood that the present disclosure is made by way of example only and the combination and arrangement of parts may be resorted to without departing from the spirit and scope of the invention hereinafter claimed.

I claim:

1. An improved eyeliner applicator including a holding tube having a liquid feeding core being fitted in said holding tube and extending from said holding tube for conducting a

makeup of defining eyes, and an outer cap for being fitted to said holding tube after completing the makeup; the improvement comprising:

said holding tube having a front tapered portion fitted with a tapered sleeve therein and having a rear extending portion within which a chamber is defined for storing cosmetic liquid; wherein said tapered sleeve is fitted with a brush tip therein, said brush tip is fitted with a tapered end of said liquid feeding core therein, a buffering tube is fitted within said holding tube such that said liquid feeding core is insertedly fitted in said buffering tube and extends from said buffering tube to communicate with said chamber defined in said holding tube, said buffering tube has a front end engaged with a rear end of said tapered sleeve, so as to affix said tapered sleeve and said liquid feeding core to said holding tube, said buffering tube is provided with fins along a periphery thereof so as to define a plurality of grooves between said fins, said buffering tube is provided with a plurality of through holes for communicating the periphery of said buffering tube with said liquid feeding core; whereby, cosmetic liquid can be drawn from said chamber to said brush tip for conducting a makeup of defining eyes, when cosmetic liquid fed from said chamber is more than a demand required in said brush tip, excessive liquid can be diverted to said grooves via said through holes.

2. The improved eyeliner applicator of claim 1, wherein said holding tube is provided with a collar at a rear end of said tapered portion of said holding tube, which is fitted with an outer case in flush with said collar.

3. The improved eyeliner applicator of claim 1, wherein said holding tube is provided with one or more protrusions at said tapered portion thereof to snugly engage with said outer cap.

4. The improved eyeliner applicator of claim 1, wherein said buffering tube is provided a flange at a rear end thereof to hermetically engage with an interior of said holding tube.

5. The improved eyeliner applicator of claim 1, wherein said chamber is defined within said rear extending portion of said holding tube, a rolling ball is placed within said chamber, a plug is sealed to a rear end of said holding tube.

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