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2,629,123

RETRACTABLE LIQUID APPLYING MEANS

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FIG. 1

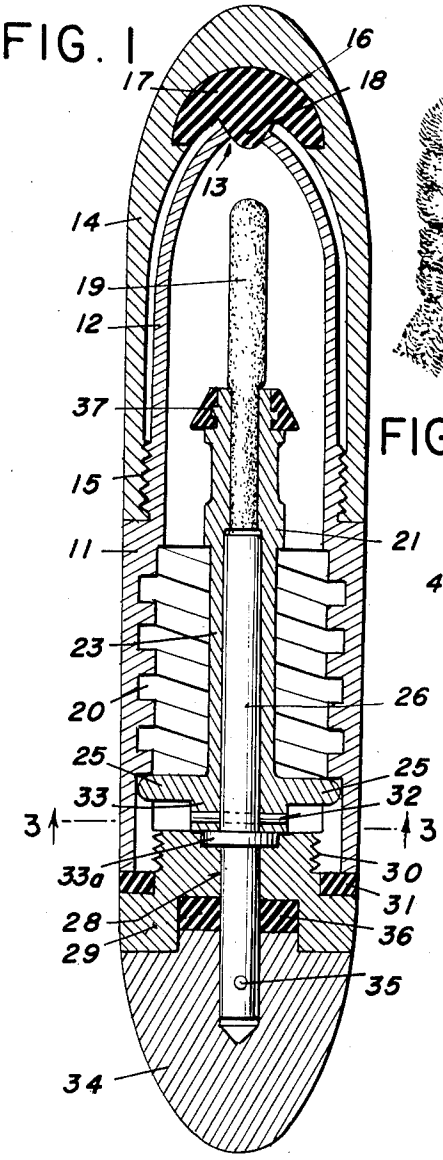
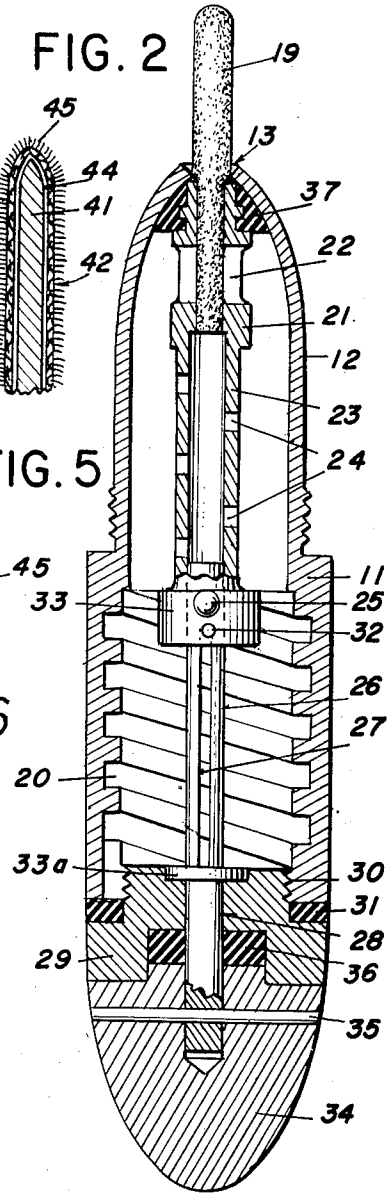


FIG. 2



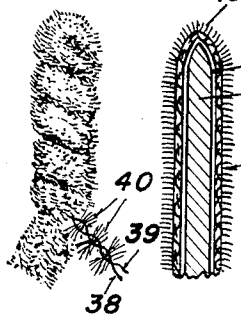


FIG. 4

FIG. 5

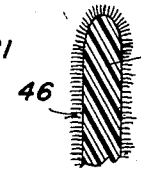
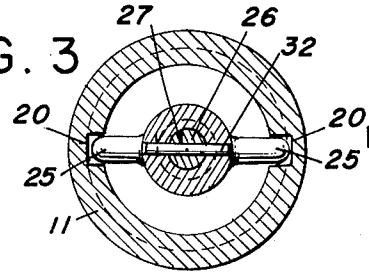


FIG. 6

FIG. 3



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RETRACTABLE LIQUID APPLYING MEANS

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2 Claims. (Cl. 15—134)

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The present invention relates to a means for applying liquids, and more particularly, to a handy device for the application of liquid lipstick substance, such as rouge, liquid cosmetics, liquid pharmaceutical preparations, or the like.

An object of the invention is a device for the application of liquids, having a casing receiving the liquid, in which casing a retractable means associated with a liquid applying tip is mounted in such a manner that said means can be moved to a position in which said tip projects from said casing and is adapted to be completely retracted therein, whereby it is entirely immersed in said liquid.

Another object of the invention is to provide a liquid applying tip having a stiff elongated core preferably made of a plurality of twisted rods or wires between which suitable fibres of soft material are firmly held or clamped, whereby the exterior of said liquid applying tip is completely formed by said fibre material.

A further object of the invention is a liquid applying tip having a thin end tapered free and adapted to exactly applying the liquid coating to the lips, eyeshadows, or other parts of the skin, hair, etc., whereby finest contours or lines can easily be drawn.

A still further object of the invention is a liquid applying means in which the applying tip is primarily supplied with liquid in its retracted and immersed position and has a relatively large storing capacity so that it holds ample liquid for a prolonged use in its projected position.

A further object of this invention is a liquid applying means in which a solution of volatile solvents, such as alcohol, and dissolved substances can be used without disadvantage, i. e. when the surface of the end of the liquid applying tip is exposed to the atmosphere in its position of use, it becomes gradually covered or clogged up by a film of the residue of the evaporated solution, and such film is automatically dissolved and the tip washed, cleaned, after return of the tip to its retracted or immersed position. The tip is then immediately ready for the next use.

These and other objects of this invention will appear more fully in the following detailed description when considered in connection with the attached drawing, in which:

Fig. 1 is a longitudinal section through an embodiment of the new applying means adapted to apply liquid rouge or the like to one's skin, hair, etc., in closed or non-use position.

Fig. 2 shows a longitudinal section through the same applying means in open position, the cap being removed, and the liquid applying tip being projected ready for use.

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Fig. 3 is cross section through the applying means in Fig. 1 along the line 3—3 looking in the direction of the arrows.

Fig. 4 shows a schematic view, on an enlarged scale, of a portion of a preferred structure of the liquid applying tip built into the device of Figs. 1 and 2.

Fig. 5 shows a view of a portion of another embodiment of such applying tips, also, on an enlarged scale.

Fig. 6 is a view of a portion of a third embodiment of such applying tip, on an enlarged scale.

With reference to the drawing, the casing 11 of the applying means in Figs. 1 and 2 is a preferably cylindrical tube or barrel of suitable material, such as metal, rubber, plastic or the like, having a front portion 12 of a smaller diameter than the main portion 11, the free end of said front portion 12 being provided with an opening 13. This front portion 12 can be tightly closed by a removable cap 14 screwed on the threads 15 formed on the cylindrical outer wall of said front portion 12.

A cavity 16 is provided within the tip part of the cap 14, being adapted to hold a packing 17 of rubber or the like material, having the shape of an inverted W on its surface of contact with the open end of said front portion 12. A protruding center portion 18 of said rubber packing 17 fits exactly in the opening 13 of said front portion 12 and seals it when the cap 14 is secured on said front portion 12.

Any kind of retractible means can be used in said casing 11 to move a liquid applying tip 19. In the preferred example, shown in Figs. 1, 2 and 3, screw threads 20 are provided in the inner surface of said main portion or casing 11. While the embodiment of Figs. 1 and 2 shows two screw threads, any other number of screw threads may be used. A holding member 21 constituting a sleeve with a large aperture 22 in its center is adapted to receive said tip 19 inserted and held therein by friction. Said holding member 21 extends downwardly, as shown in Figs. 1 and 2, in a tube 23 which may be integral with it. A plurality of holes 24 may be provided in the walls of said tube 23. The lower end of said tube is associated with two arms 25 extending therefrom at opposite sides and forming right angles with said tube 23. Said arms 25, engage the screw threads 20, in which they can move. A rod 26 is inserted in the inner opening of said

tube 23, and has a slot 27 extending through a major part of its length. The lower full end of said rod 26 is passed through an opening 28 in the bottom plug 29 screwed at 30 in the lower end of said casing 11. A washer 31 of rubber or similar material serves to seal the joint between the plug 29 and the casing 11. A pin 32 is passed through an opening in a hub 33 formed on the lower extremity of said tube 23, whereby said pin 32 passes through the slot 27. An enlarged portion 33a of the rod 26 engages the lower wall of a small recessed seat in the upper portion of said plug 29. A gripping member 34 is mounted on the outer lower end of said rod 26 by means of a pin 35 passed through said member 34 and said rod 26. A washer 36 of rubber or the like material, seals the joining parts while exerting a slight friction.

When the gripping member 34 in Fig. 1 is rotated in clockwise direction, the rod 26 is also rotated causing a rotation of the arms 25 guided in the screw threads 20, because said arms 25 are taken along with the aid of said pin 32 shifting upwardly in the slot 27 of said rod 26. In other words, the tube 23, the holder 21 and the tip 19 are moved upwardly, until the tip has reached its end position shown in Fig. 2. In this position of use the tip is firmly guided by the wall of the opening 13. The tip remains in this position, if pressure is applied thereto, because the screw threads 20 cause a self-locking action due to their pitch. A washer 37 secured on the front end of said tip holder 21 and having a shape corresponding to the shape of the inner wall of the front portion 12 of said casing 11 seals said casing 11, when the tip is in its position of use shown in Fig. 2. As a result of the mentioned self-locking action of the screw threads 20 this seal remains unchanged, if pressure is applied to the tip when in use.

The tip 19 can be returned from its position, shown in Fig. 2, to the non-operation or retracted position illustrated in Fig. 1, by turning the gripping means 34 counterclockwise. In the latter position, the tip 19 is completely immersed in the liquid filled into the casing 11 through the opening 13. The liquid has access to the tip 19 from all sides, as there are provided the aperture 22 in the holder 21 and the openings 24 in the tube 23. Due to the natural movement of the liquid, when the device is carried in a pocket or handbag or is handled, the liquid is agitated and causes a cleaning action on the tip, as mentioned above.

The reinforced tip 19 can be constructed in various ways. According to the diagrammatic showing in Fig. 4 the tip is formed by twisting two wires 38 and 39 of small diameter and suitable material and inserting therebetween fibres 40 of any suitable material having absorbing qualities. The unit of twisted wires 38 and 39 holding the fibres 40 is folded over and the super-imposed wire unit is then twisted to form the double twisted and reinforced tip 19.

Another embodiment of a suitable tip is illustrated in Fig. 5, where a core 41 of relatively hard stiff material, such as metal, plastic or the like, is covered by a textile sleeve 42 made, for example, of velvet material, closed at the front tip 43. The core 41 has longitudinal grooves 44 in its surface to increase the flow of the liquid and liquid storing capacity of the tip.

Fig. 6 shows a modification of the tip of Fig. 5. A core 45 of plastic or like material is the reinforcing member of the tip. Fibres or bristles 46 of suitable material are embedded in or cemented on said core 45 in any manner.

In place of a textile covered tip, there may be provided a tip having a body, for example, of plastic material with a plurality of liquid holding small grooves or cavities in any distribution or arrangement, which may communicate with liquid supplying capillary openings in the interior of the core. No covering by textile or other material will be necessary in this case.

As shown in Figs. 1 and 2, the lower end of the tip 19 is inserted in the holder 21 whereby the inserted portion is squeezed so that it holds firmly in said holder. The tip 19 can be easily exchanged by another one, if worn out. The opening 13 in the front portion 12 has such diameter that the fibrous material on the tip 19 is wiped when the tip is moved to the position shown in Fig. 2 so that any excess liquid will be removed therefrom which otherwise would disturb the proper application of small amounts of coating substance necessary for the drawing of sharp and exact lines or contours.

It will be understood that changes and modifications in the form, size, construction, arrangement and combination of the several parts of the structure may be made and substituted for those herein shown and described without departing from the nature and principle of this invention.

I claim:

1. A liquid applying means comprising in combination a liquid filled casing open at one of its ends; a liquid applying tip; a tubular, slotted holding means for said tip inside said casing, one end of said tip being inserted in one end of said tubular holding means; a perforated tube member inside said casing, the other end of said tubular holding means being mounted on the one end and as an extension of said perforated tube member; an elastic sealing means secured to and surrounding said one end of said tubular holding means; a self-locking moving mechanism in said casing operatively connected to the other end of said perforated tube member, said moving mechanism being accessible at the outside of said casing to displace said perforated tube member together with said tubular holding means and said inserted liquid applying tip with respect to said casing, whereby, in the position of use, said liquid applying tip is projected through said open end of said casing and said sealing means on said tubular holding means is tightly held on the inner wall surface of said casing near its open end and firmly maintained in this position under the action of said self-locking mechanism, and whereby said liquid applying tip can be returned to its position of non-use, in which said tip is entirely retracted in said casing and immersed in said liquid having free access to the side and the inserted end of said tip through the slots in said tubular, slotted holding means and through the perforations in said perforated tube, respectively.

2. A liquid applying means according to claim 1, wherein said self-locking mechanism is of the screw-thread type.

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(References on following page)

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
66,036	Olds	June 25, 1867
113,305	Kellogg	Apr. 4, 1871
193,381	Newton	July 24, 1877
230,120	French	July 20, 1880
526,428	Wirt	Sept. 25, 1894
591,908	Zacharias	Oct. 19, 1897
616,990	Tallmadge	Jan. 3, 1899
692,237	Carpenter	Feb. 4, 1902
1,362,601	Chandler	Dec. 21, 1920
1,391,282	Stephens	Sept. 20, 1921
1,413,827	Briggs	Apr. 25, 1922
1,786,418	Baquey	Dec. 30, 1930
2,151,682	Burkey	Mar. 28, 1939
2,195,472	Szucs et al.	Apr. 2, 1940

FOREIGN PATENTS

Number	Country	Date
145,662	Austria	May 11, 1936
604,700	Germany	May 10, 1933
676,268	Germany	June 1, 1939