

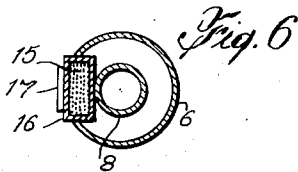
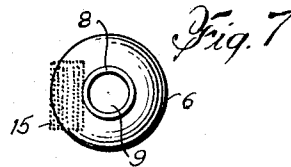
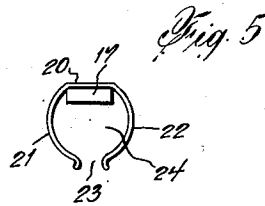
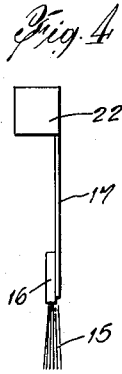
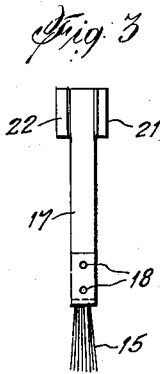
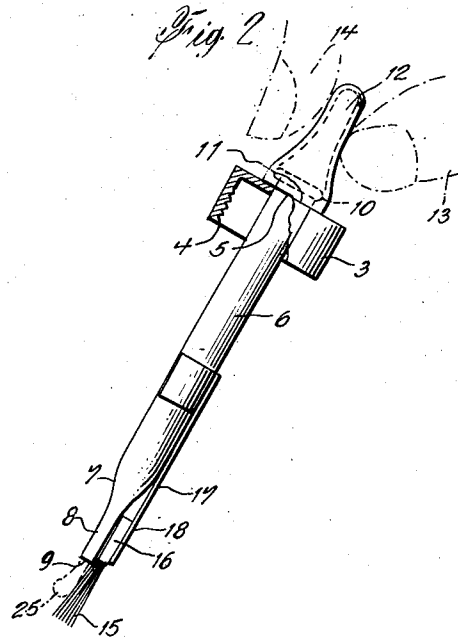
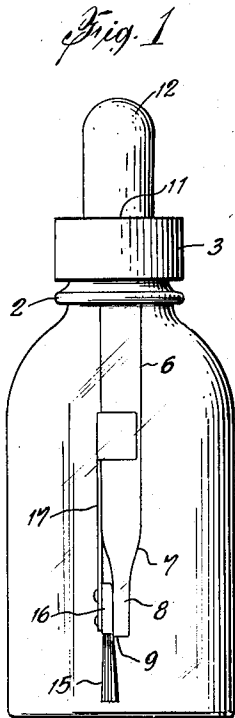
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2,520,605

BRUSH APPLICATOR CARRIED BY CLOSURE

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BRUSH APPLICATOR CARRIED BY CLOSURE

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4 Claims. (Cl. 15—140.4)

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The present invention relates to a device for applying viscous liquids, and more particularly to means for applying nail polish to the finger nails.

Heretofore it was customary to apply nail polish to the fingers by providing a brush and dipping the same in the nail polish after which the brush was applied to the nails. This operation required the user to see to it that just the right amount of liquid was on the brush and to apply the same carefully to the nail as otherwise some of the polish was apt to drop off or to run into undesired areas.

It has been proposed to overcome this difficulty by providing an applicator resembling a fountain pen and consisting of a rigid tube closed at the upper end and having a flexible rubber lower end. A brush was fixed within the flexible rubber tube and a small opening at the bottom of said flexible tube provided means for allowing the dropping of liquid onto the brush. A baffle was provided to direct the liquid onto the brush.

Such a device has not come into any substantial use as it suffers from inherent disadvantages. The cost of manufacture is relatively high due to the necessity of making all of the parts of special form and materials. The small opening at the bottom of the flexible tube has a tendency to become clogged by the evaporation of the solvent from the natural polish so that feeding of the polish to the brush is uncertain. Also, in the use of the applicator, the fingers press upon the flexible tube so that when pressure was applied for spreading the nail polish, an excess of more polish was likely to be dropped onto the brush or fingers.

The present invention is intended and adapted to overcome the difficulty and disadvantages inherent in prior structures, it being among the objects thereof to provide a device for applying nail polish which is simple in construction and convenient in operation.

It is also among the objects of the present invention to provide an applicator for nail polish which contains a sufficient reservoir so that an entire set of nails may be coated with the polish with but a single filling of the applicator.

In practicing the present invention there is provided a bottle or jar or the like containing nail polish. Said bottle has a cover or cap which is usually of the internally threaded type. There is provided a tube passing through a central opening in the cover and a bulb of resilient material is secured to the upper end of the tube above said cover. The lower end of the tube is

constricted so as to be of a substantially smaller diameter than the main portion thereof. A relatively small opening is provided at the lower end of the constricted portion. There is further provided a brush held in a base with a handle for the said brush extending upwardly and terminating in a pair of clips of resilient material. The clips embrace the intermediate portion of said tube and the brush is located adjacent to and below the constricted portion thereof.

By such an arrangement the brush is made detachable so that it may be removed at any time for replacement or for cleaning. The diameter of the entire applicator is not substantially greater than the diameter of the cylindrical tube so that there is no interference when the applicator is introduced into or removed from the bottle or jar.

In the accompanying drawing constituting a part hereof and in which like reference characters indicate like parts,

Fig. 1 is a front elevational view of a bottle in combination with an applicator for nail polish, made in accordance with the present invention;

Fig. 2 is a front elevational view of the applicator removed from the bottle and in use, some parts being broken away for clearness;

Fig. 3 is a front elevational view of the brush and associated parts shown detached from the remainder of the device;

Fig. 4 is a side elevational view of said brush;

Fig. 5 is an enlarged top plan view of the brush and the clip attached thereto;

Fig. 6 is an enlarged cross-sectional view through the constricted portion of the tube and through the brush base, some parts being shown in elevation; and

Fig. 7 is an enlarged end view of said tube with the attached brush.

There is provided a bottle 1 having a neck 2 which is threaded, the bottle being filled to a suitable height with a liquid nail polish composition. A cap 3 having an internal thread 4 co-operates with the threads of neck 2 to close the top of the bottle.

A central cylindrical opening 5 in said cap or cover 3 has a cylindrical tube 6 usually of glass or the like, passing through the same and fitting tightly in said opening 5. The lower end of tube 6 is formed with a tapered portion 7 and terminates in a cylindrical constricted end 8 of substantially less diameter than that of tube 6. This provides a constricted opening 9 at the lower end of said tube.

The upper end 10 of tube 6 is flanged and the

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lower edge 11 of a resilient rubber bulb 12 or the like fits tightly around flange 10 and acts as a seal for tube 6 and cover 3. Bulb 12 is adapted to be gripped by thumb 12 and forefinger 14. A brush 15 is held in a base 16 and a thin flat handle 17 has its lower end secured to base 16 by rivets 18. The lower end 19 of base 16 is approximately opposite opening 9 so that as liquid emerges from said opening, it immediately comes in contact with brush 15 which is adjacent thereto but which does not obstruct the flow of liquid therefrom.

A clip 20 is secured by any suitable means to the upper end of handle 17 and is provided with a pair of arcuate arms 21 and 22 which are adapted to embrace tube 6. Said arms have sufficient resiliency so as to grasp tube 6 and frictionally hold brush 15 in position. Arms 21 and 22 approach each other, leaving a relatively small opening 23 between them and a central opening 24, the size of which is slightly less than the outer diameter of tube 6.

By this arrangement brush 15 is held in the desired position relative to opening 9 as shown in Figs. 1 and 2. Handle 17 is in longitudinal contact with tube 6 and being flat and relatively thin, does not add substantially to the diameter thereof. Base 16 is of such size that it fills the space between the lower end of handle 17 and constricted portion 8. Thus the brush is substantially within the area defined by a projection of the upper surface of the tube 6 and does not extend laterally beyond tube 6 and at the same time is held in such close relationship to opening 9 that each drop of liquid 25 as it emerges immediately contacts with brush 15 and is absorbed by the brush, since the brush is substantially in direct contact with the wall of opening 9. Thereby there is no danger of any of the liquid dropping off of the brush. Also the opening 9 is always free and clear so that there is no interference with the flow of liquid when bulb 12 is pressed. In using the applicator, the parts are in the position shown in Fig. 1 and bulb 12 is pressed by thumb and forefinger so as to expel air, and then released. This fills tube 6 to the desired point with the relatively viscous nail polish and cap 13 is unscrewed and removed from the bottle.

As shown in Fig. 2, the applicator is held in inclined position and bulb 12 is pressed to cause a drop 25 of the liquid to fall upon brush 15 and it is absorbed thereby immediately. The fingers then release the pressure at 12 and the applicator may be held or supported in the hand by means of cover 3. Thereby accidental pressure of bulb 12 is prevented and therefore no further drops of liquid 25 will be accidentally fed onto the brush. As the polish in brush 15 is consumed, pressure may again be applied to bulb 12 to cause an additional drop 25 to fall upon and be absorbed by brush 15. The operation may then continue until the application to the nails has been completed and the applicator is then returned to bottle 1.

Because of the specific details of construction of the device, the applicator may be used with certainty to coat finger nails and toe nails without danger of extending the coating beyond the nails. Also the hand of the user is so far removed from the nail polish that it remains clean and free from accidental contact with said nail polish. Because it is not necessary to dip into the bottle for more polish for each nail, the operation is much more rapid and much more satisfactory.

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A better and smoother coating on the nails is obtained thereby.

Although the invention has been described setting forth a single specific embodiment thereof, the invention is not limited thereto but various details of the construction of the device may be altered within the spirit of the invention. For instance, the formation of the several elements, such as bulb, cap, tube, brush and the like, may be altered considerably. The materials of construction may be of any type suited for the purpose, as for instance, tube 6 need not be made of glass but may be made of metal, hard rubber, plastics or the like. The handle and associated parts may be made of metal, plastic material or any other substance having the desired properties.

These and other changes in the details of construction may be made without departing from the principles set forth herein and the invention is therefore to be broadly construed and not to be limited except by the character of the claims appended hereto.

I claim:

1. An applicator for nail polish and the like comprising a cylindrical tube, a bottle cover having a central opening, one end of said tube being anchored in said opening, a bulb of resilient material secured to said first end of said tube, a constricted portion formed at the other end of said tube and having an opening at said other end thereof, a brush adjacent to said constricted portion, a brush base, the base end of said brush being secured in said base, and a handle attached to said base and detachably mounted on and lying against an intermediate portion of said tube, said tube opening being adjacent to said base end of said brush to allow nail polish to drop from said tube onto said brush and to flow in said brush to the tip thereof, said brush due to its shape and size being located substantially within the area defined by a projection of the outer surface of said first end of the tube, said brush being flat and the flat face thereof directly contacting the edges of said opening.

2. An applicator for nail polish and the like comprising a cylindrical tube, a bottle cover having a central opening, one end of said tube being anchored in said opening, a bulb of resilient material secured to said first end of said tube, a constricted portion formed at the other end of said tube and having an opening at said other end thereof, a brush adjacent to said constricted portion, a brush base, the base end of said brush being secured in said base, and a handle attached to said base and detachably mounted on and lying against an intermediate portion of said tube, said tube opening being adjacent to said base end of said brush to allow nail polish to drop from said tube onto said brush and to flow in said brush to the tip thereof, said brush due to its shape and size being located substantially within the area defined by a projection of the outer surface of said first end of the tube, said brush being flat and the flat face thereof directly contacting the edges of said opening, and an arcuate clip at the opposite end of said handle gripping said cylindrical tube.

3. An applicator for nail polish and the like comprising a cylindrical tube, a bottle cover having a central opening, one end of said tube being anchored in said opening, a bulb of resilient material secured to said first end of said tube, a constricted portion formed at the other end of said tube and having an opening at said other end

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thereof, a brush adjacent to said constricted portion, a brush base, the base end of said brush being secured in said base, and a handle attached to said base and detachably mounted on and lying against an intermediate portion of said tube, said tube opening being adjacent to said base end of said brush to allow nail polish to drop from said tube onto said brush and to flow in said brush to the tip thereof, said base and brush due to their shape and size being located substantially within the area defined by a projection of the outer surface of said first end of the tube, said brush directly contacting the edges of said opening.

4. An applicator for nail polish and the like comprising a cylindrical tube, a bottle cover having a central opening, one end of said tube being anchored in said opening, a bulb of resilient material secured to said first end of said tube, a constricted portion formed at the other end of said tube and having an opening at said other end thereof, a brush adjacent to said constricted portion, a brush base, the base end of said brush being secured in said base, and a handle attached

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to said base and detachably mounted on and lying against an intermediate portion of said tube, said tube opening being adjacent to said base end of said brush to allow nail polish to drop from said tube onto said brush and to flow in said brush to the tip thereof, said base and brush due to their shape and size being located substantially within the area defined by a projection of the outer surface of said first end of the tube, said brush directly contacting the edges of said opening at one side only of said opening.

STELLA MAYNIER.

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