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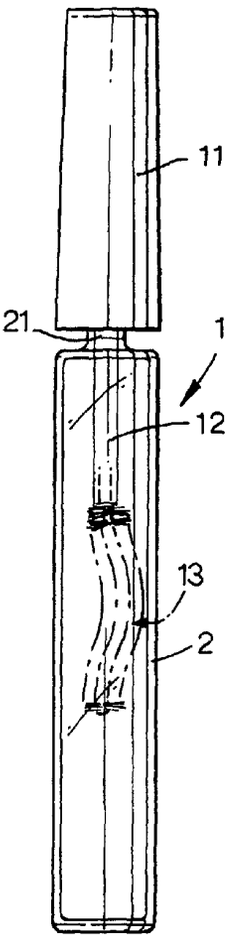
(54) Mascara brush

(57) A mascara applicator having specialised sections adapted for the application of mascara to the upper and lower eyelashes. The applicator preferably takes the form of a twisted wire core, with fibres trapped therein.

The first section of the mascara applicator has an arcuate shape, which is designed to replicate the curvature of the eye, so that mascara can be applied to the upper eye lashes in a single stroke. The second section of the applicator has a linear shape, which is sized to allow precise application of mascara to the shorter lower lashes, using multiple strokes if desired.

Fig.1.



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Description

[0001] The present invention relates to an improved mascara applicator and in particular to a mascara applicator having two sections specially adapted to apply make up to the upper and lower eye lashes respectively. The mascara applicator according to the invention comprises two distinct sections.

[0002] Conventional mascara brushes comprise a plurality of fibres, extending from a linear, twisted wire core. Primarily, the fibres of the brush are required to have two functions: to deposit the mascara product onto the eye lashes and to comb the product through the lashes to provide a smooth, even appearance. Thus, where the brush is composed of only one type of fibres, the fibres have to have properties that are a compromise between the combing and application requirements of the brush. A combination of two types of fibres has also been suggested (for example in EP0239270) to achieve this desired effect: Soft fibres to apply the product to the eye lashes and harder fibres to comb the product through the lashes and separate the individual lashes.

[0003] Mascara brushes comprising a plurality of fibres extending from a curved core have also been suggested in the prior art, for example in EP 832 580. However, whilst the curved section may be suitable for applying mascara to longer lashes, it is not always suitable.

[0004] The inventors of the present invention have realised that in addition to these conventional criteria, the type of brush and fibres used therein is also dependant upon the form and length of the eye lashes to be made up. Thus preferably, a different design of brush is required to apply mascara product to the longer, upper eye lashes than to the shorter, lower lashes. Advantageously, the brush allows the upper eye lashes to be made up with a single natural movement of the brush, whilst allowing more precise application of mascara to the shorter lower lashes.

[0005] Accordingly, the mascara applicator according to the present invention comprises two sections, a first section adapted for the application of mascara to the upper eyelashes and a second section adapted for the application of mascara to the lower lashes, characterised in that the first section has an arcuate shape and the second section has a linear shape.

[0006] The arcuate, first section of the mascara applicator allows a user to load the brush with mascara then to apply the mascara to the longer, upper eye lashes using only one stroke of the brush. The curved shape of the first section of the mascara brush also allows the user to curve and separate the upper eye lashes in a single stroke of the brush across the lashes. The straight, second section of the mascara brush allows precise application of mascara to the shorter lower eye lashes. Thus, the second section of the brush allows the user to apply mascara to the lower eye lashes precisely and without the risk of injury. Furthermore, the shape of the brush ensures that the user can charge the brush in one stroke (i.e. on simple removal of the brush from the bottle) and then make up the upper and lower eyelashes using the specialised sections of the single brush.

[0007] Preferably the first and second sections are arranged contiguously along a common core. This arrangement allows the user to orientate the arcuate section as desired to achieve the single stroke application of mascara to the upper eye lashes. The user may then use the straight free end of the brush to more precisely make-up the shorter lower lashes, using several strokes of the brush if desired.

[0008] This brush arrangement also ensures that on removal of the mascara brush from the bottle, no clump of mascara is left on the free end of the brush, as is commonly the case with the prior art brushes. This is because, the brush is not in a conventional, straight position as it is removed from the bottle, instead the free end of the brush tends to be inclined to the wiper, because the applicator follows the brush core shape as it is removed from the bottle. This allows the wiper to wipe any clump of mascara from the end of the mascara brush as it leaves the bottle.

[0009] The mascara brush may be provided in the form of a conventional twisted wire core, with fibres trapped therein to form the brush head. The fibres may all have the same length to provide a brush envelope (i. e. the "envelope" defined by the tips of the fibres) which takes the same shape as the core of the brush. However, the brush envelope may also be trimmed using convention techniques, to define a brush envelope having a different cross section.

[0010] Furthermore, the whole brush head may be composed of either identical fibres or different fibres. Thus, the two sections of the brush head may be composed of a mixture of soft and stiff fibres as described in the prior art. Alternatively, different fibres may be used to form the fibres in the two sections of the brush, thereby specialising the function of the two sections of the brush even further. For example, the fibres in the linear section of the brush may be specialised for the application of mascara to the shorter, lower eye lashes and the fibres in the arcuate section of the brush may be specialised for application of mascara to the longer, upper eye lashes.

[0011] Preferably, the linear section is provided at the free end of the brush, to allow precise application of mascara to the lower lashes and the arcuate section is interposed between the brush handle and the linear section.

[0012] The invention will now be described, by way of example only, with reference to the accompanying drawings in which:

FIGURE 1 shows a side view of a conventional mascara bottle containing a brush according to the present invention.

FIGURE 2 shows a side view of the mascara brush

shown in Figure 1, outside the mascara bottle.

FIGURE 3 shows a side view of the head of the mascara brush shown in Figures 1 and 2.

FIGURE 4 shows a side section view through the mascara brush, before deformation.

FIGURE 5 shows a side section view through the mascara brush shown in Figure 4, after deformation.

[0013] Referring to Figures 1 and 2, the mascara applicator 1 according to the present invention is dimensioned such that it can be contained within a conventional mascara bottle 2. The mascara applicator 1 comprises a decorative cap 11, adapted to co-operate with a threaded neck finish 21 on the mascara bottle 2. An elongate, axial shaft 12 extends from inside the cap 11 into the mascara bottle 2. A Brush head 13 is provided at the free end of the shaft 12. The brush head 13 is located within the bottle 2, such that it can pick up the mascara product therein. On removal from the mascara bottle 2, the brush head 13 passes through a wiper (not shown) where excess mascara is removed from the brush head 13, before use.

[0014] Figure 3, shows the brush head 13 in more detail. The brush head 13 comprises a first arcuate segment 51, and a second linear segment 52. The arcuate segment 51 is designed to allow a use of the applicator 1 to apply mascara to the longer upper eye lashes in a single stroke. For this reason, the radius of curvature of the arcuate segment 51 is chosen to replicate the curvature of the eye, to maximise the number of eye lashes reached by the brush head 13. The second linear segment 52 is designed to allow the user to apply mascara to the shorter, lower eye lashes more precisely. The length of the linear section is chosen to allow precise manipulation of this section of the brush.

[0015] Preferably, the brush head takes the conventional form of a twisted wire core with a plurality of fibres trapped therein, to provide the brush head. A suitable method of manufacturing a mascara brush according to the present invention is shown in Figures 3 and 4. First, a conventional linear brush head 13 is manufactured (as shown in Figure 3). The brush head 13 comprises a twisted wire core 61 and a plurality of fibres trapped therein, to form a cylindrical brush envelope 62. The central portion of the brush head 13 is then deformed to form the curved section 63 and the free end of the brush head 13 is maintained straight to form the linear section 64. Preferably, the radius of curvature of the curved section 63 is between 5 mm and 20 mm. The ratio of length of the curved section 63 compared to the linear section 64 is approximately 4:1. These preferred design parameters are chosen to provide a brush in which the curved section 63 closely conforms to the shape of the eye and the linear section 64 is of suitable length to allow a user to precisely make up the eye lashes.

[0016] Preferably, the fibres have a diameter of 0.05 mm to 0.4 mm and the number fibres per radial turn used in the brush head is between 8 and 200. It has been found that a brush manufactured to these parameters is particularly effective.

Claims

1. A mascara applicator comprising two sections, a first section adapted for the application of mascara to the upper eyelashes and a second section adapted for the application of mascara to the lower lashes, **characterised in that** the first section has an arcuate shape and the second section has a linear shape.

2. A mascara applicator according to claim 1, wherein the first and second sections are contiguously arranged along a common core.

3. A mascara applicator according to claim 2, wherein the first, arcuate section is interposed between the applicator handle and the second section.

4. A mascara applicator according to any one of the preceding claims, wherein the length and radius of curvature of the first, arcuate section is chosen to allow a user of the applicator to apply make up to the upper eye lashes in a single stroke.

5. A mascara applicator according to any one of the preceding claims, wherein the first, arcuate section has a radius of curvature of between 5 mm and 20 mm.

6. A mascara applicator according to any one of the preceding claims wherein the ratio of length of the first section compared to the second section is about 4:1.

7. A mascara applicator according to any one of the preceding claims, comprising a plurality of fibres of the same length, held in place between a twisted wire core.

8. A mascara applicator according to claim 7, wherein the same fibres are used in the first and second sections of the brush.

9. A mascara applicator according to claim 7, wherein the fibres used in the first section of the brush are different to the fibres used in the second segment of the brush.

10. A mascara applicator according to claim 8 or claim 9, comprising a mixture of fibres having different properties.

Fig.1.

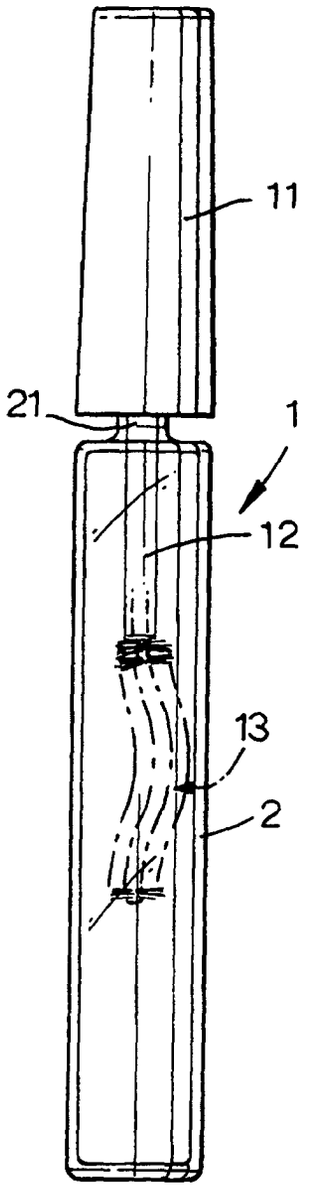


Fig.2.

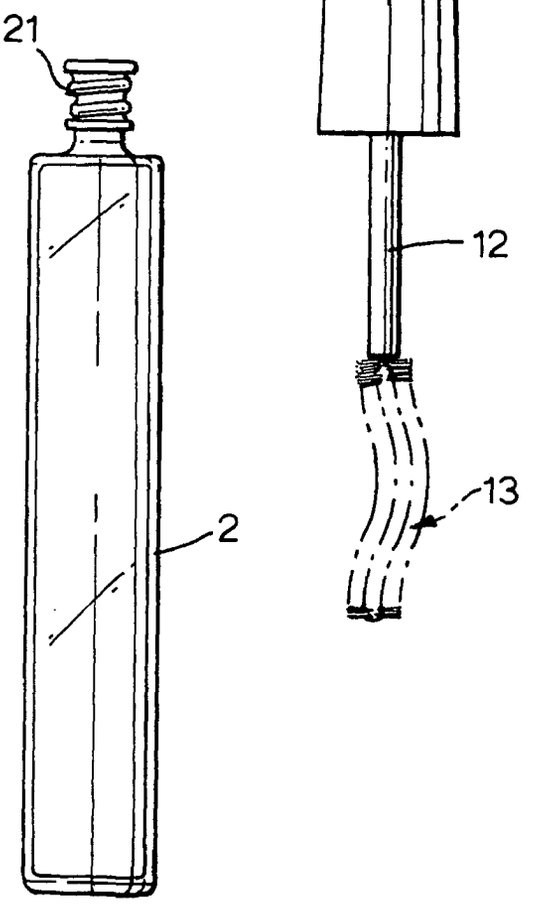


Fig.3.

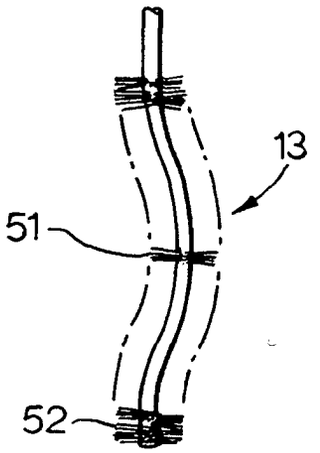


Fig.4.

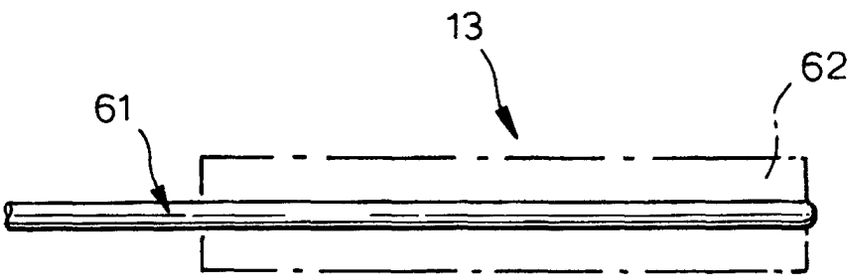
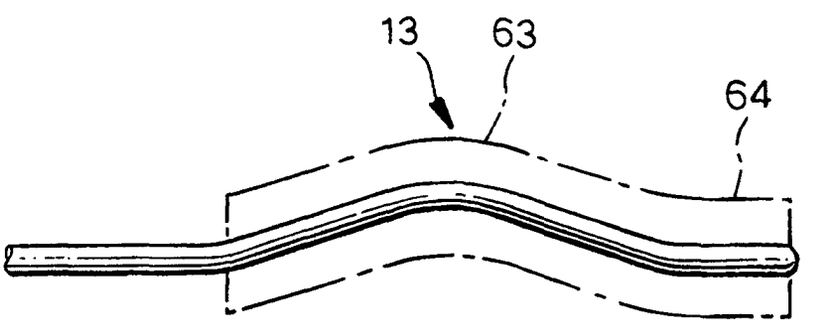


Fig.5.



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EUROPEAN SEARCH REPORT

Application Number
EP 01 12 4743

DOCUMENTS CONSIDERED TO BE RELEVANT

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A	US 5 816 728 A (VALDES NANCY E ET AL) 6 October 1998 (1998-10-06) * abstract; figures *	1-10	
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A	US 6 237 609 B1 (VASAS MARTIN M) 29 May 2001 (2001-05-29) * abstract; figures *	1-10	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7) A46B A45D A46D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	25 March 2002	Ottesen, R

CATEGORY OF CITED DOCUMENTS

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