



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
15.06.2011 Bulletin 2011/24

(51) Int Cl.:
A45D 34/04 ^(2006.01) *A45D 40/26* ^(2006.01)
A46B 9/04 ^(2006.01)

(21) Application number: **10193544.3**

(22) Date of filing: **02.12.2010**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME

(71) Applicant: **Chromavis S.P.A.**
20122 Milano (IT)

(72) Inventor: **Priore, Romualdo**
20129, Milano (IT)

(74) Representative: **Vanosi, Adelio Valeriano**
Giambrocono & C. S.p.A.
Via Rosolino Pilo, 19/B
I-20129 Milano (IT)

(30) Priority: **09.12.2009 IT MI20092162**

(54) **Roller applicator for mascara**

(57) A roller applicator for mascara comprising a rod on which a cylindrical roller is mounted formed of porous

material able to absorb the fluid mascara by capillary. Advantageously the roller rotates about the rod.

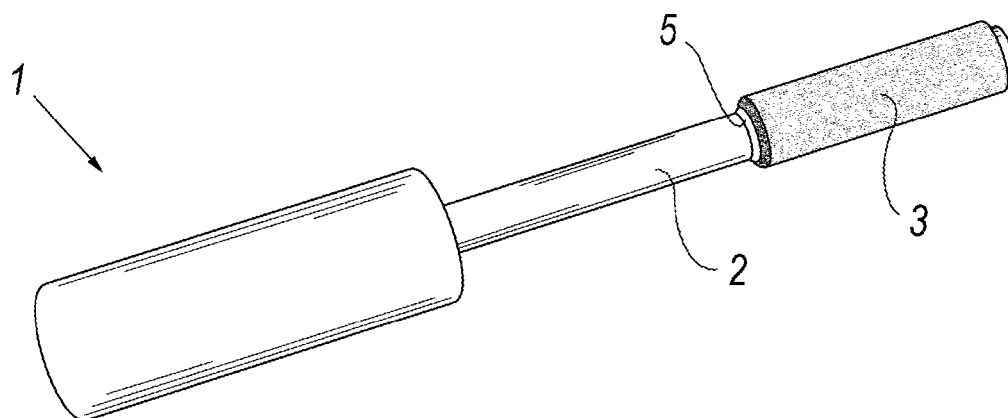


Fig. 1

Description

[0001] The present invention relates to a roller applicator for mascara.

[0002] Mascara applicators are currently in the form of a rod on which fibres are mounted to form the brush by which the product is withdrawn and deposited on the eyelashes. Mascaras applied by traditional brushes are generally in the form of a cream.

[0003] When application of a large product quantity to the eyelashes is not necessary as only a coloured effect is required, applicators able to load only a minimum product quantity onto the brush have to be used, together with a very narrow scraper to further reduce the load.

[0004] An object of the present invention is therefore to provide a mascara applicator which enables very fluid formulations (viscosity less than 120 centipoise at 25°C) to be used to colour eyelashes such as to produce a natural and orderly result.

[0005] This and other objects are attained by a mascara applicator in accordance with the technical teachings of the accompanying claims.

[0006] Further characteristics and advantages of the invention will be apparent from the description of a preferred but non-exclusive embodiment of the applicator, illustrated by way of non-limiting example in the accompanying drawings, in which:

Figure 1 is a perspective view of an applicator according to the invention, and

Figure 2 is an exploded perspective view of the applicator of Figure 1. With reference to said figures, these show a mascara applicator indicated overall by the reference numeral 1.

[0007] It is in the form of a rod 2, on one end of which a roller 3 is mounted formed of a porous material able to absorb fluid or liquid mascara by capillarity. Advantageously the mascara used has a viscosity less than 120 cP, at 25°C. In particular, the roller can be formed of felt, latex, or expanded polystyrene, and advantageously presents a flocked or porous external surface, very suitable for combing eyelashes.

[0008] According to an aspect of the invention, the roller rotates on the rod, but could also be fixed. If the roller is able to rotate, mascara application to the eyelashes becomes extremely delicate and enables the eyelashes to be gently combed.

[0009] Passing to the structural description of the applicator, it presents a rod with a stem of diameter D1 at a portion to which a stopper/handgrip is fixed. In proximity to the opposite end, the stem is provided with a portion of diameter D2 which is less than D1. The passage zone from the larger to the smaller cross-section therefore presents a step 4, at which a rounded profile 5 is formed.

[0010] Alternatively the profile 5 can be defined by a ring mounted on the rod.

[0011] At a distance L2 from the step 4 a stop 7 is

mounted on the rod and presents a head of diameter greater than D2, such as to secure the roller 3 in its position.

[0012] The length L1 of the roller is apt to apply mascara to woman eyelashes. For this scope the length L1 it is comprised between 10 and 40mm, but preferably it is comprised between 20 and 30mm.

[0013] The roller 3 has an outer diameter D4 of between 5 and 10 mm, preferably 7 mm.

[0014] It presents an axial through hole of diameter D3 by which it is mounted on the rod.

[0015] By suitably dimensioning the diameter D2 and D3 the roller is able to freely rotate on the rod or to remain rigid therewith.

[0016] Advantageously the aforescribed applicator is used as a stopper for a bottle containing fluid mascara. Advantageously the bottle has a collar positioned at a bottle aperture.

[0017] The collar has an opening which diverges outwards from the bottle and has a bore sized on the basis of the roller diameter D4 such as to slightly squeeze the roller when it is extracted from the container, in order to remove excess product, which falls back into the bottle.

[0018] A preferred embodiment of the invention has been illustrated, however others can be devised utilizing the same inventive concept.

Claims

1. A roller applicator for mascara comprising a rod on which, in an end position, a roller is mounted formed of porous material able to absorb the fluid mascara by capillary, the roller having dimensions apt to apply mascara to eyelashes.
2. An applicator as claimed in the preceding claim, wherein the length (L1) of the roller is comprised between 10 and 40mm, preferably between 20 and 30mm.
3. An applicator as claimed in one or more of the preceding claims, wherein the diameter (D4) of the roller is comprised between 5 to 10mm, preferably 7mm.
4. An applicator as claimed in one or more of the preceding claims, wherein said porous material is chosen as one or more of the following: felt, latex, expanded polystyrene.
5. An applicator as claimed in one or more of the preceding claims, wherein said roller presents a flocked or porous external surface.
6. An applicator as claimed in one or more of the preceding claims, wherein said roller is rotatably supported by said rod and/or said roller is rigid with said rod.

7. An applicator as claimed in one or more of the preceding claims, wherein said roller is housed in a rod end portion of smaller diameter than the remaining part of the rod. 5
8. An applicator as claimed in one or more of the preceding claims, wherein at that rod end opposite the roller a closure stopper is provided for a container in which the applicator is to be inserted, the stopper being preferably threaded. 10
9. An applicator as claimed in one or more of the preceding claims, wherein the roller surface is that of a cylinder having its generators parallel to the axis of said rod. 15
10. A mascara container presenting a bottle able to contain fluid mascara, a collar positioned at an aperture of said bottle, and an applicator in accordance with one or more of the preceding claims, said collar being sized such as to slightly squeeze the roller when this latter is extracted from the container. 20
11. Use of the applicator according to claim 1 to 10 for applying mascara to eyelashes. 25

30

35

40

45

50

55

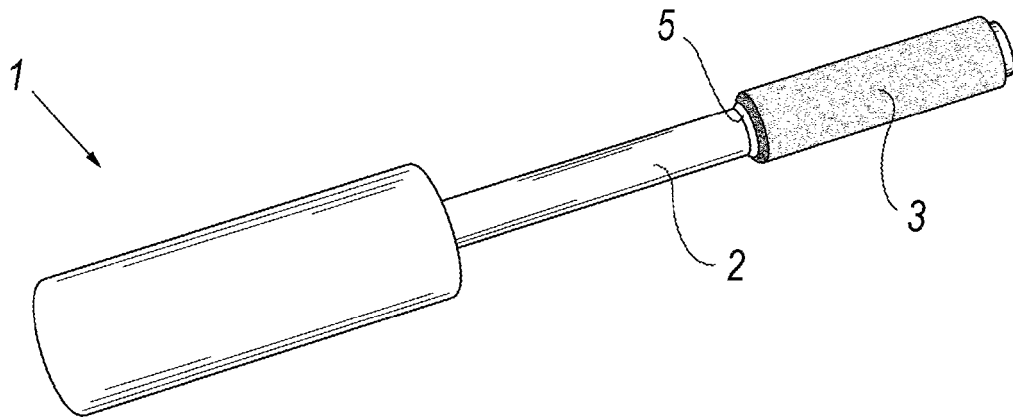


Fig. 1

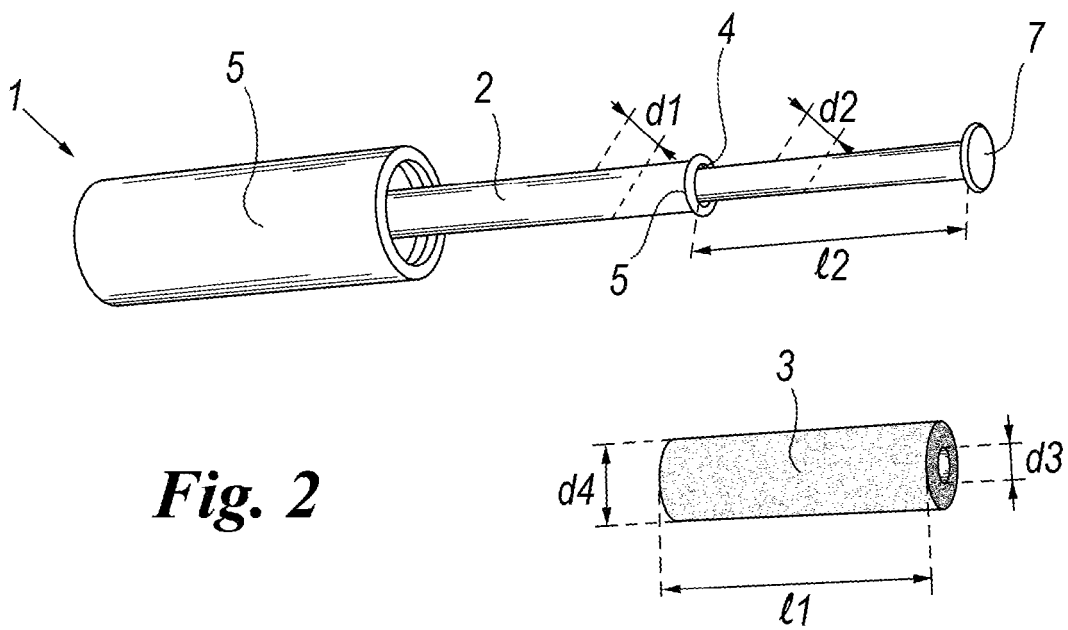


Fig. 2



EUROPEAN SEARCH REPORT

Application Number
EP 10 19 3544

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 6 196 743 B1 (BRUCKER LYNN M [US]) 6 March 2001 (2001-03-06) * column 3, line 30 - column 5, line 25 * * figures 1-1,2,3,7 * -----	1-8	INV. A45D34/04
X	FR 2 662 920 A1 (JACQUELIN JEAN) 13 December 1991 (1991-12-13) * figures 1,2 * -----	1-4,7	ADD. A45D40/26 A46B9/04
X	US 5 810 027 A (FRANTZESKAKIS MIKE [US]) 22 September 1998 (1998-09-22) * figures 1,2,4 * * claim 1 * -----	1-4,7	
A	US 2005/095052 A1 (WAINER STEPHANIE K [US] WAINER STEPHANIE KELLAR [US]) 5 May 2005 (2005-05-05) * paragraph [0069] * * figure 2 * -----	1-5	
A	US 6 450 720 B1 (CAI EDWARD ZHIHUA [US]) 17 September 2002 (2002-09-17) * figure 1 * * abstract * * paragraph [0051] - paragraph [0052] * -----	1-5	TECHNICAL FIELDS SEARCHED (IPC) A45D
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 3 February 2011	Examiner De la Hera, Germán
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

 1
EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 10 19 3544

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

03-02-2011

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6196743	B1	06-03-2001	NONE
FR 2662920	A1	13-12-1991	NONE
US 5810027	A	22-09-1998	NONE
US 2005095052	A1	05-05-2005	NONE
US 6450720	B1	17-09-2002	WO 0191604 A1 06-12-2001