MAKEUP COMPOSITIONS FOR THE THICKENING AND LENGTHENING OF EYELASHES

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15 Claims. (Cl. 167—85)

The present invention relates to a makeup preparation for emphasizing and beautifying the eyelashes and for a dispenser including said preparation.

In accordance with certain features of the present invention, the makeup preparation comprises a mascara base containing a predetermined percentage of small fibers and constitutes a premixed mass in such form that small amounts may be removed therefrom by a pick-up device for direct application in premixed form to the eyelashes. Since the makeup mass from which the small amounts for eyelash application is premixed, the person applying the makeup is assured that the proper mixture is applied to the eyelash to produce the desired effects.

The application of the preparation described to the eyelashes, thickens and lengthens them, and results in definite emphasis of the eyelashes and greater beauty to the eye area.

If the mascara without fibers is applied to the eyelashes, and then the fibers alone are applied separately to the eyelashes, as for example, by a brush, there is no assurance that the fibers applied will be colored thoroughly by the mascara. It would, therefore, be necessary in such cases, in order to assure proper uniform coloration of the eyelashes, to employ fibers that are separately tinted black. Mascara contains innocuous coloring matter, such as carbon or oxide pigments, but fibers would have to be tinted with dyes, in order to assure full uniform coloration of the eyelashes when these fibers are applied to the eyelashes. Such dyes may be harmful in the sensitive regions of the eye.

The premixed preparation of the present invention contains the fibers in natural or white undyed state, and because the mascara and the fibers are thoroughly premixed under factory controlled formulations, the makeup preparation picked up by an applicator for application to the eyelashes will contain the fibers fully coated black by the mascara. The premixed preparation of the present invention, therefore, not only assures against the application of an eyelash makeup having disproportionate amounts of mascara or fibers, but also assures the use of makeup preparation free from ingredients having harmful effects.

In accordance with the present invention, it has been determined that optimum performance is dependent on the length of the fibers, and that it is desirable to employ fibers having two different lengths, the shorter lengths serving to thicken the eyelashes, and the longer ones serving to lengthen them. For example, it has been determined in accordance with the present invention, that when fibers of \( \frac{3}{16}'' \) or less in length are used, the effect on the eyelashes is hardly different from that obtained using regular mascara. Fibers of \( \frac{3}{16}'' \) in length incorporated in the mascara base result in a definite thickening of the eyelash. Also, there is a lengthening of the eyelash with fibers \( \frac{1}{16}'' \) in length. It was determined in accordance with the present invention that the length of the eyelashes is increased effectively and desirably by the use of fibers of \( \frac{1}{16}'' \) in length. When fibers of \( \frac{1}{4}'' \) in length or longer are used, the lengthening effect is enhanced, but the fibers do not adhere evenly on the eye lashes, and there is great difficulty incorporating such fibers uniformly into the mascara base.

It has also been determined in accordance with the present invention that a mixture of fibers about \( \frac{3}{16}'' \) long and about \( \frac{1}{16}'' \) long results in an optimum balanced effect of both thickening and lengthening the eyelash.

To attain a desirable balance in the thickening and lengthening of the eyelashes, there should be employed a combination of fibers, in which the proportion of \( \frac{3}{16}'' \) fibers ranges in weight from 50% to 80% and the proportion of \( \frac{1}{16}'' \) fibers ranges in weight from 30% to 20%. Highly effective proportions would be about 75% by weight of \( \frac{3}{16}'' \) fibers and about 25% by weight of \( \frac{1}{16}'' \) fibers.

The concentration of the fibers in the mascara-fiber preparation may range from 2% to 8% by weight. An effective concentration for a specific example may be about 4%.

The denier of the fibers should range from 3 to 15. A suitable denier would be about 9.

The fibers, as far as certain features of the invention are concerned, can be of any suitable material, such as nylon, wool and cotton. However, rayon fiber has been found to be particularly suitable. Such fibers, for example, may be those classified as “rayon fibers—bright natural.”

The fiber is undyed and is desirably white, so that no ingredients are present in the premixed preparation which may injure the eyes. The fiber, whatever its color will assume the coloration of the mascara.

It has been found that the preparation containing a mixture of mascara and fibers, as described, is highly suitable for use in conjunction with a dispenser of the type carrying a grooved applicator rod and a reservoir of such preparation into which the rod dips. The preparation for use with such a dispenser should have a consistency ranging from a pasty state to a thick or viscous liquid state having sufficient viscosity to prevent the separation of the fibers in the reservoir and thereby to maintain the fibers uniformly dispersed throughout the mass of mascara.

For use with an applicator rod of the general type described, the mascara base consists essentially of an adhesive and a volatile solvent therefor which allows quick application of the mascara followed by quick drying, thereby permitting multiple application during a single makeup operation. Water based formulation can be used for the mascara, but the drying time for this formulation is longer.

The adhesive desirably is a wax, such as beeswax, cerasin, Japan vegetable wax or the like, beeswax being found to be especially suitable. The solvent for the wax may be a volatile hydrocarbon, such as the oil of turpentine. The amount of this solvent would depend on its solvent properties and on the fluidity desired for the final preparation. A suitable formulation for the mascara-fiber mixture may contain 50% to 70% by weight of volatile solvent and sufficient water, as for example, about 10% by weight, to form an emulsion using a suitable emulsifying agent, such as borax.

The coloring matter in the mascara is desirably carbon on a harmless pigment, such as oxide colors.

An example of a suitable formulation for the preparation of the present invention is as follows:

<table>
<thead>
<tr>
<th>Beeswax</th>
<th>4 lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil of turpentine</td>
<td>10 lbs.</td>
</tr>
<tr>
<td>Borax</td>
<td>0 lbs. 2 ozs.</td>
</tr>
<tr>
<td>Water</td>
<td>0 lbs. 2 ozs.</td>
</tr>
<tr>
<td>Castor oil</td>
<td>0 lbs. 9 ozs.</td>
</tr>
<tr>
<td>Rayon fibers 1/16”, 9 denier</td>
<td>0 lbs. 3 ozs.</td>
</tr>
<tr>
<td>Rayon fibers 1/11”, 9 denier</td>
<td>1 lb. 8 ozs.</td>
</tr>
</tbody>
</table>
Cosmetic colors (carbon or oxide colors), 1–10% approx. to proper shade.

The castor oil in this formulation serves as an emollient, as a sheening or dressing agent, and as a means for adding to the body of the preparation.

In the specific formulation described, the preparation will be in the form of a thick viscous liquid short of being pasty.

The grooved applicator rod by which the preparation of the present invention may be dispensed and applied is desirably spirally V-threaded to form the grooves, as shown in the drawings. The grooved applicator rod dips into the mascara-fiber preparation contained in a reservoir and then withdrawn from the reservoir, can be applied to the eyelashes by a stroking action causing the grooves containing the preparation to be carried along said eyelashes with the eyelashes in said grooves. This causes the eyelashes to pick up the mixture of mascara and fibers at the same time to be separated.

It has been determined in accordance with the present invention, that the grooved part of the applicator rod should have an outside diameter varying between .100 and .177 inch and should have between 32 and 52 threads per inch to perform satisfactorily with mascara-fiber mixture of the character described. When an applicator rod has more threads per inch than 52, the makeup application is too fine, taking longer to apply the makeup. When an application of less than 32 threads per inch is used, the application is coarse, resulting in matting and clinging together of the eyelashes. In a specific embodiment, the outside diameter of the grooved part of the applicator rod could be about .138" and the number of threads per inch could be 42. Also, in a specific embodiment, the included angle between the threads may be 64°.

The following drawings illustrate a form of dispenser of the grooved applicator rod type that may be used in conjunction with the mascara-fiber preparation of the present invention.

In these drawings:

FIG. 1 is a perspective showing a dispenser in closed position;

FIG. 2 is a perspective showing the grooved applicator rod withdrawn from the reservoir of the dispenser containing the mascara-fiber preparation and

FIG. 3 is a longitudinal section of the closed dispenser shown somewhat enlarged.

Referring to the drawings, the dispenser consists essentially of a reservoir containing a preparation which corresponds to the mixture of mascara and fibers described above and an applicator rod of the general type referred to above extending into said reservoir for immersion in said mascara mixture and terminating in a handle by which said rod may be pulled out of said reservoir and applied to the eyelashes. More specifically, these basic elements of the dispenser may be embodied in a dispenser device, as shown in the drawings. In this illustrated embodiment of the invention, the reservoir consists of an outer casing shell and a lining preferably made of aluminum or a plastic which will not react with the mascara and terminating short of the outer end of the outer shell, whereby said shell defines an end extension beyond said lining. Seated against the end of the lining is an annular metal washer and over that is an annular washer made of elastomeric material, such as rubber or an elastic plastic. Holding the lining and washer and 26 permanently together is an annular bushing 18 with an enlarged inner end portion extending into the extension 17 of said lining and secured to said extension, as for example, by a press-fit. This bushing 18 bears against the resilient washer 20 desirably with some pressure to place said washer under a little compression. Thus, the elements 18, 19, 20 and 22 are firmly secured to the outer casing shell 15 to form a permanent unit therewith.

The bushing 22 has an outer end portion of reduced diameter externally threaded and extending beyond the outer end of the shell 15 to define a neck to which the handle 14 may be removably attached. The handle comprises a hollow cap or casing secured to the applicator rod 13 by means of a bushing extending fully into the end of said casing and firmly secured thereto, as for example, by press-fitting. This bushing is formed with a recess to define an annular skirt internally threaded for screw engagement with the externally threaded end portion of the bushing 22 and has its head permanently secured to the outer end of the applicator rod 13 by riveting, as shown, or by any other suitable means. An annular washer of elastomeric material, such as rubber, or elastic plastic, encircling the shank of the applicator rod is located in the recess of the bushing and is seated against the head of the bushing. The washer is under sufficient pressure to be held permanently against the head of the bushing even when the cap 25 is unscrewed from the bushing or reservoir part of the dispenser, and is adapted to bear against the end of the bushing 22 with a sealing fit when the cap is screwed home to said bushing.

The diameter of the applicator rod is slightly greater than the diameter of the hole in the elastic washer, so that said washer serves to wipe the excess mascara-fiber mixture as the rod is withdrawn from the reservoir without offering excessive resistance to this withdrawal of the rod. The inner end section of the applicator rod 13 dipping into the mascara-fiber mixture is equipped with circumferential grooves which are desirably helical and V threads constructed as described above.

In operation, when it is desired to apply makeup to the eyelashes, the cap 25 is unscrewed from the bushing 22 attached to the reservoir 11 and the applicator rod 13 is then withdrawn from the reservoir, as shown in FIG. 2. As the applicator rod 13 moves through the wiping washer, all the mascara-fiber mixture on the exterior surface thereof will be removed except that which is in the grooves. The applicator rod 13 may be applied to the eyelashes so that they enter the grooves and pick up the mascara-fiber mixture therein. This can be conveniently accomplished by holding the applicator rod parallel to the eyelashes and stroking the eyelashes from the eyelid outwardly to the ends of the eyelashes. The threads or the applicator rod 13 will keep the eyelashes separated and prevent matting, and the fibers in the mascara-fiber mixture will thicken the eyelashes with fuzz-like realism and at the same time will lengthen them, so that the appearances around the regions of the eyes are emphasized and enhanced.

Although the mascara-fiber preparation described is in semi-plastic or thick liquid form for use in connection with a dispenser of the grooved applicator rod type, as far as certain aspects of the invention are concerned, the mixture preparation can be in the form of a solid cake and the applicator thereof can be in the form of a brush. The mascara base for such a cake-like preparation could be of the type well known in the art for such preparations, and the fibers and their proportions would be substantially as indicated in connection with the more fluid type of preparation described above. With such cake formulation, the mascara base would consist essentially of an adhesive, such as beeswax, soap to permit the removal of the preparation by a wet brush and a pigment and possible adjuncts, such as glycerine. No volatile solvents would be used.

While the invention has been described with particular reference to specific embodiments, it is to be understood that it is not to be limited thereto but is to be construed broadly and restricted solely by the scope of the appended claims.
What is claimed is:
1. An eyelash makeup preparation comprising a mascara base and fibers mixed therewith for thickening and lengthening the eyelashes, the preparation being in premixed form for application to the eyelashes in this form by means of an applicator device.
2. An eyelash makeup preparation comprising a mascara base and fibers of two lengths mixed therewith, the fibers of shorter length serving essentially to thicken the eyelashes when the preparation is applied thereto and the fibers of longer length serving essentially to lengthen the eyelashes when applied thereto, the preparation being in premixed form for application to the eyelashes by means of an applicator device.
3. An eyelash makeup preparation comprising a mascara base and fibers mixed therewith for thickening and lengthening the eyelashes, the preparation being in premixed form for application to the eyelashes in this form by means of an applicator device, said mascara base being colored with a pigment, said fibers being undyed but assuming the coloration of the mascara fiber mixture, and the shorter fibers ranging in weight from 50% to 80% and the proportions of the longer fibers ranging from 50% to 20% in weight, the concentration of the fibers in the preparation ranging from 2% to 8% by weight of the mascara fiber mixture, and the denier of the fibers ranging from 3 to 15, said mascara base being colored with a pigment, said fibers being undyed but assuming the coloration of the mascara base.
4. An eyelash makeup preparation as described in claim 3, said mascara base in addition to the pigment consisting essentially of a wax and a volatile solvent for said wax, and the preparation having a consistency ranging from a paste to a viscous liquid.
5. An eyelash makeup preparation as described in claim 10, said mascara base with the fibers admixed therewith being in the form of a cake from which the preparation can be picked up in increments by a brush for application to the eyelashes.
6. An eyelash makeup preparation comprising a reservoir and an applicator rod extending into said reservoir and removably connected to said reservoir, said applicator rod being round in cross-section and having a circumferentially grooved section extending into the preparation in said reservoir, and an eyelash makeup preparation in said reservoir comprising a mascara base and fibers mixed with said base for thickening and lengthening the eyelashes, said preparation having a consistency ranging from a viscous liquid to a paste, said fibers being of two lengths, the fibers of shorter length serving essentially to thicken the eyelashes when the preparation is applied thereto and the fibers of longer length serving essentially to lengthen the eyelashes when applied thereto.
7. The combination as described in claim 13, wherein said applicator rod has a threaded section extending into the preparation in said reservoir, the outside diameter of said threaded section ranging between .100 inch and .175 inch, and the number of threads ranging between 32 and 52.
8. An eyelash makeup preparation comprising a mascara base and fibers of two lengths mixed therewith, the fibers of shorter length being approximately 1/16" long and serving essentially to thicken the eyelashes when the preparation is applied thereto and the fibers of longer length being approximately 4/16" long and serving essentially to lengthen the eyelashes when applied thereto, the proportion of the shorter fibers ranging in weight from 50 to 80% and the proportion of the longer fibers ranging in weight from 50 to 20%, the preparation being in premixed form for application to the eyelashes by means of an applicator device.

References Cited

UNITED STATES PATENTS
3,033,213 5/1962 Joss 132—84X

ALBERT T. MEYERS, Primary Examiner.
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UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,384,547 May 21, 1968

Maria A. Palmerio et al.

It is certified that error appears in the above identified
patent and that said Letters Patent are hereby corrected as
shown below:

Column 1, line 51, before "makeup" insert -- a --. Column 2,
line 61, "on" should read -- or --; line 68, "0 1bs. 2ozs."
should read -- 1 lb. 8 ozs. --; line 69, "0 1bs. 9 ozs." should
read -- 0 lbs. 2 ozs. --; line 70, "0 1bs. 3 ozs." should read
-- 0 lbs. 9 ozs. --; line 71, "1 lb. 8 ozs." should read --
0 lbs. 3 ozs. --. Column 3, line 23, ".177 inch" should read
-- .175 inch --. Column 5, line 55, and Column 6, line 43,
"lengh"; each occurrence, should read -- length --. Column 6,
line 45, "lengh" should read -- length --.

Signed and sealed this 23rd day of September 1969.

(SEAL)
Attest:
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