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D E C I S I O N
of 7 May 1996

Case Number: T 0271/94 - 3.2.4

Application Number: 87301927.7

Publication Number: 0239270

IPC: A46B 9/06

Language of the proceedings: EN

Title of invention:
Mascara brush

Patentee:
HENLOPEN MANUFACTURING CO., INC., et al

Opponent:
Otto Katz

Headword:
-

Relevant legal provisions:
EPC Art. 123(2), 111(1)

Keyword:
"Inventive step (yes for auxiliary request No. 8)
Extension of subject-matter by generalisation of features
(yes)"
"Remittal to examining division"

Decisions cited:
T 0194/84

Catchword:
-



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Boards of Appeal

Chambres de recours

Case Number: T 0271/94 - 3.2.4

D E C I S I O N
of the Technical Board of Appeal 3.2.4
of 7 May 1996

Appellant:
(Opponent)

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Representative:

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Respondent:
(Proprietor of the patent)

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Decision under appeal:

Decision of the Opposition Division of the
European Patent Office posted 26 January 1994
rejecting the opposition filed against European
patent No. 0 239 270 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: C. A. J. Andries
Members: M. G. Hatherly
J. P. B. Seitz

Summary of Facts and Submissions

I. The decision of the opposition division to reject the opposition against European patent No. 0 239 270 was dispatched on 26 January 1994.

On 29 March 1994 the appellants (opponents) both filed an appeal against this decision and paid the appeal fee. The Statement of Grounds of Appeal was received on 1 June 1994.

II. The following documents were referred to during the appeal proceedings:

D1 GB-A-1 221 919
D2 US-A-4 403 624
D3 FR-A-1 134 245

By letter of 19 April 1996 the appellants submitted the draft of an "Eidesstattliche Versicherung" by Georg Karl, following this with the signed original with a letter dated 25 April 1996.

III. Oral proceedings took place on 7 May 1996 in the presence of the parties.

In the appeal proceedings the appellants did not attack claim 1 of any request under novelty but argued essentially that the subject-matter of claim 1 of each request was obvious from the documents of the prior art and the skilled person's general knowledge. However in the oral proceedings the appellants did not mention the "Eidesstattliche Versicherung" by Georg Karl.

The respondents essentially countered the appellants' arguments, maintaining that combinations of the prior art documents were not obvious and would not lead to the claimed subject-matter.

IV. The appellants request that the decision under appeal be set aside and the patent revoked.

V. The respondents' main request is for dismissal of the appeal (which would mean maintaining the patent as granted).

Claim 1 as granted reads as follows:

"A spiral mascara brush (10), comprising

(a) a multiplicity of bristles (14), each having opposed free ends, and

(b) means (16) for fixedly mounting the bristles in a continuous spiral array such that the free ends of the bristles are disposed along a helix,

wherein the improvement comprises

(c) said multiplicity of bristles consisting essentially of

(i) a first quantity of bristles (26) having a flexural strength adapted to apply mascara to a user's eyelashes, and

(ii) a second quantity of bristles (28) having a flexural strength, substantially greater than the flexural strength of the bristles of said first quantity, adapted to comb applied mascara through a user's eyelashes."

VI. Auxiliarily the respondents request that the decision be set aside and the patent be maintained in amended form on the basis of eight auxiliary requests, set out in detail below in the order in which they are to be considered:

1. The "Fifth Auxiliary Request" filed at the oral proceedings, including

- independent claim 1 which adds to claim 1 as granted that the first and second quantity of bristles are "of synthetic material".

2. The "Amended Claims - First Auxiliary Request" filed at the oral proceedings, including

- independent claim 1 which adds to claim 1 as granted the features of "said first and second quantities of bristles being randomly intermingled throughout the length of said spiral array, and being of synthetic material"; and

- independent claim 4 which adds to claim 1 as granted the words "said spiral array including at least two contiguous portions (30, 30', 32, 32'), disposed in tandem along the length of the array, one of said two portions (30, 30') being a mascara-applying portion consisting essentially of bristles of said first quantity and the other of said two portions (32, 32'), being an eyelash-combing portion consisting essentially of bristles of said second quantity."

3. The "Amended Claims - First Auxiliary Request" filed with the letter of 7 October 1994,
 - which is the same as Auxiliary Request 2 ("Amended Claims - First Auxiliary Request" filed at the oral proceedings) except that there is no mention of synthetic material in independent claim 1.

4. The "Amended Claims - Fourth Auxiliary Request" filed at the oral proceedings, including
 - independent claim 1 which adds to claim 1 as granted that "the first-quantity bristles and the second-quantity bristles are respectively fabricated of different synthetic materials selected such that, for a given bristle diameter, bristles fabricated of the second-quantity bristle material have greater flexural strength than bristles fabricated of the first-quantity bristle material."

5. The "Amended Claims - Fourth Auxiliary Request" filed with the letter of 19 April 1996,
 - which is the same as Auxiliary Request 4 ("Amended Claims - Fourth Auxiliary Request" filed at the oral proceedings) except that the materials are not specified as being synthetic.

6. The "Amended Claims - Second Auxiliary Request" filed at the oral proceedings,
 - whose sole independent claim, claim 1, is essentially the same as the claim 1 of Auxiliary Request 2 ("Amended Claims - First Auxiliary Request" filed at the oral proceedings).

7. The "Amended Claims - Second Auxiliary Request" filed with the letter of 7 October 1994,

- which is the same as Auxiliary Request 6 ("Amended Claims - Second Auxiliary Request" filed at the oral proceedings) except that there is no mention of synthetic material.

8. The "Amended Claims - Third Auxiliary Request" filed with the letter of 19 April 1996,

- whose sole independent claim 1 is essentially the same as the independent claim 4 of Auxiliary Request 2 ("Amended Claims - First Auxiliary Request" filed at the oral proceedings).

Claim 1 of this request reads as follows:

"A spiral mascara brush (10), comprising

- (a) a multiplicity of bristles (14), each having opposed free ends, and
- (b) means (16) for fixedly mounting the bristles in a continuous spiral array such that the free ends of the bristles are disposed along a helix, characterized by
- (c) said multiplicity of bristles consisting essentially of
 - (i) a first quantity of bristles (26) having a flexural strength adapted to apply mascara to a user's eyelashes, and
 - (ii) a second quantity of bristles (28) having a flexural strength, substantially greater than the flexural strength of the bristles of said first quantity, adapted to comb applied mascara through a user's eyelashes, and by

- (d) said spiral array including at least two contiguous portions (30, 30', 32, 32'), disposed in tandem along the length of the array, one of said two portions (30, 30') being a mascara-applying portion consisting essentially of bristles of said first quantity and the other of said two portions (32, 32') being an eyelash-combing portion consisting essentially of bristles of said second quantity."

The respondents requested also the remittal to the first instance and an apportionment of costs if the board were to take into account the late-filed "Eidesstattliche Versicherung".

Reasons for the Decision

1. The appeal is admissible.
2. **Main Request** - *claim 1 as granted*
 - 2.1 The board agrees with the respondents that the starting point for the spiral mascara brush of the present invention is the spiral mascara brush disclosed by document D1 and not one of the mascara brushes disclosed by document D2 where the spines are arranged in various patterns and with various spacings unachievable in a spiral mascara brush.
 - 2.2 The problem which arises with the spiral mascara brush disclosed by document D1 is to improve application of mascara and separation of the lashes. Various combinations of brush and comb, either separately or as a back-to-back arrangement, have been designed in an

attempt to solve this problem but this does not stop the skilled person searching for another solution. If the person in the cosmetic industry who is confronted with the problem is not a brush maker, then he can certainly be expected to consult a brush maker since poor results in use will soon be suspected to be due to the brush and/or the mascara.

The brush maker can be expected to know of more than, or look farther than, just mascara brushes. While it would be unreasonable to expect the brush maker to be an expert in everything from mascara brushes to carpet sweepers, his knowledge or research could be expected to encompass brushes of a personal nature. Document D3 is a document of which the brush maker could be expected to be aware.

- 2.3 Document D3 discusses in lines 21 to 26 of the left hand column of page 1 that it had been necessary to use successively two separate brushes implanted with different bristles, one brush with rigid bristles and the other with flexible or supple bristles. It is explained that rigid bristles disentangle the hair (the same column, lines 2 and 3) and supple bristles are used to apply a lustre-imparting product to the hair (the same column, lines 15 to 20). The citation explains furthermore in the same column, lines 27 to 34 that to avoid the inconvenience of using successively two brushes it had been advocated to use a single brush with rows of rigid bristles alternating with rows of flexible bristles but that this had proved unsatisfactory.

Document D3 proposes to overcome the disadvantages of these known hair brushes by providing a brush whose tufts consist of a mixture of rigid bristles and flexible, supple bristles (see the same column, lines 35 to 38). In use the rigid bristles disentangle and harrow

the hair while the supple bristles polish the hair and can apply a layer of treatment product to them (right hand column on page 1, lines 33 to 38)

Thus document D3 discusses a problem which is very close to that facing the skilled person wishing to improve the mascara brush disclosed by document D1 who knows that the two component solutions (brush and comb) are unsatisfactory. The citation discusses the application of a product to hair and explains why a single brush of one type of bristles is unsatisfactory, reinforcing the skilled person's view that a change of the D1 brush is necessary. The document explains that it is inconvenient to use two brushes, again a view with which the skilled person will not find fault, and that it is unsatisfactory to use a single brush with alternate rows of different bristles. Thus the document D3 would be of great interest to the skilled person who finds therein a solution to the similar hair brush problem, a solution which he realises is applicable also to a mascara brush.

The teaching of document D3, although a rather old document, would be seen as perfectly sensible by the skilled person who knows of brushes in general having a mixture of different bristles which, unless the mixture occurs naturally, must be there so that each bristle type can impart its own properties to the mixture.

- 2.4 Starting from the disclosure by document D1 of a spiral mascara brush having the features of the precharacterising portion of claim 1 as granted, the obvious replacement of the single-type bristles by the mixture of bristles disclosed in document D3 would yield a spiral mascara brush with a multiplicity of bristles consisting essentially of a first quantity of bristles and a second quantity of bristles having a flexural strength, substantially greater than the flexural

strength of the bristles of said first quantity. These two types of bristles would achieve the purpose set out in the claim, namely to apply mascara and comb it though the eyelashes.

2.5 Thus the subject-matter of claim 1 as granted is not inventive and the main request cannot be allowed.

3. ***Auxiliary Request 1 ("Fifth Auxiliary Request")***

3.1 Claim 1 of this request specifies the first and second quantity of bristles are "of synthetic material".

3.2 This term "synthetic material" is nowhere to be found in the granted patent and nowhere to be found in the application as originally filed but in the respondents' view is an allowable generalisation of the terms "nylon" and "polyester" mentioned at various places in the originally filed and the granted descriptions and claims because the skilled person would realise that synthetic materials and not just nylon and polyester could be used and because the conditions set out in Guidelines C-VI, 5.8a are satisfied.

Clearly the amendment extends the range of materials from which the bristles can be made from merely polyester and nylon to all synthetic materials. The materials polyester and nylon are not even disclosed as complete alternatives but specifically as nylon for the bristles of both quantities or nylon for the first-quantity bristles with polyester for the second-quantity bristles.

Even if it would be apparent to the skilled person that certain other synthetic materials could be used, the board cannot follow the argument that in the present case the obviousness of a feature can be considered as a

replacement for the original disclosure, particularly since only nylon has been disclosed for the first quantity bristles.

Therefore analogously to decision T 194/84 (OJ EPO 1990, 059) which disallowed the replacement of "natural cellulose fibres" by "cellulose fibres", the board cannot accept the replacement of nylon and polyester in specific situations by a synthetic material or synthetic materials in general.

Furthermore, the Guidelines C-VI, 5.8a concerns replacement or removal of a feature from a claim, neither of which applies in the present case which concerns the addition of a non-disclosed generalisation of a disclosed feature.

3.3 Consequently this request is refused since the amendment made in claim with respect to the granted claim 1 contravenes Article 123(2) EPC.

4. **Auxiliary Request 2** ("Amended Claims - First Auxiliary Request" filed at the oral proceedings), **Auxiliary Request 4** ("Amended Claims - Fourth Auxiliary Request" filed at the oral proceedings) and **Auxiliary Request 6** ("Amended Claims - Second Auxiliary Request" filed at the oral proceedings)

Since each of these requests also employs the term "synthetic material", they are all refused for the reasons (Article 123(2) EPC) given in the above section 3.

5. **Auxiliary Request 3** ("Amended Claims - First Auxiliary Request" filed with the letter of 7 October 1994) and **Auxiliary Request 7** ("Amended Claims - Second Auxiliary Request" filed with the letter of 7 October 1994)
 - 5.1 Claim 1 of each of these requests adds to claim 1 as granted (see the main request - the above section 2) that the first and second quantities of bristles are randomly intermingled throughout the length of said spiral array.
 - 5.2 Document D3 discloses a mixture of the first and second quantities of bristles. The board considers that the normal way to mix these quantities would yield a random mixture and this random mixture would extend throughout the length of the bristle array. Figure 4 appears to teach such a random arrangement. To arrange the quantities in distinct groups would be more complicated and would lead to the same disadvantages attributed in lines 27 to 34 in the left hand column of page 1 of document D3 to the alternate row brush.
 - 5.3 Consequently, taking into account the arguments made in the above sections 2 and 5.2, the board finds the subject-matter of claim 1 of each of these auxiliary requests obvious and dismisses the requests.
6. **Auxiliary Request 5** ("Amended Claims - Fourth Auxiliary Request" filed with the letter of 19 April 1996)
 - 6.1 Claim 1 of this request adds to claim 1 as granted (see the main request - the above section 2) that "the first-quantity bristles and the second-quantity bristles are respectively fabricated of different materials selected such that, for a given bristle diameter,

bristles fabricated of the second-quantity bristle material have greater flexural strength than bristles fabricated of the first-quantity bristle material."

- 6.2 This does not mean that the first and second quantity bristles must be of the same diameter but merely that what might be termed the specific flexural strength is greater in the second quantity bristles than in the first quantity bristles.
- 6.3 The prior art discussion in document D3, in lines 21 to 26 of the left hand column of page 1, of two separate brushes implanted with different bristles states that the bristles are of natural or artificial material, of the same origin or not. It is obvious that also both the single brush which constitutes the invention in document D3 and the mascara brush forming the subject of the present patent could be made from bristles of different origin. Bristles which are not of the same origin almost certainly have different specific strengths. Then the skilled person is only left with a single choice, that the stiffer bristles overall are those with the higher specific flexural strength or that the stiffer bristles overall are those with the lower specific flexural strength. The former choice is the more likely than achieving the greater overall stiffness of the second quantity bristles by them having a considerably greater diameter than the first quantity bristles.
- 6.4 Thus, taking into account the arguments made in the above sections 6.2 and 6.3, the subject-matter of claim 1 of this auxiliary request is found obvious and the request dismissed.

7. **Auxiliary Request 8** ("Amended Claims - Third Auxiliary Request" filed with the letter of 19 April 1996)

7.1 The claim 1 of this auxiliary request adds to claim 1 as granted that the spiral array includes at least two contiguous portions disposed in tandem along the length of the array, one being a mascara-applying portion consisting essentially of bristles of said first quantity and the other being an eyelash-combing portion consisting essentially of bristles of said second quantity.

7.2 The subject-matter added to claim 1 as granted is to be found in both the granted claim 5 and in claim 5 as originally filed. Embodiments of this new claim are shown in Figures 3 and 4. The new claim 1 has a narrower scope than the granted claim 1. Thus no objection arises under either Article 123(2) EPC or Article 123(3) EPC.

7.3 Starting from the brush disclosed by document D1, the board sees the problem to be solved by the invention as being to successfully achieve both mascara application and eyelash combing while remaining with the one-piece spiral construction and to facilitate use of the brush.

The different stiffness bristles achieve the application and combing while having the different areas of different stiffness bristles in tandem along the brush makes it easy for the user to employ the right area of the brush for the right purpose.

The board thus considers that the features of claim 1 of this auxiliary request solve the problem presented by the mascara brush disclosed by document D1.

7.4 Neither document D1 nor document D3 contains any hint towards providing a plurality of contiguous portions in tandem, one containing essentially the more flexible bristles and the other the stiffer bristles. In document D1 it can only be assumed that all the bristles are the same. Document D3 teaches a random intermingling of the stiff bristles with the flexible bristles. Although in its prior art discussion in the left hand column of page 1, lines 27 to 34, document D3 mentions a brush with alternate rows of stiff bristles and flexible bristles, this is not a brush with contiguous portions in tandem and is moreover deemed to be disadvantageous.

Thus a mascara brush with different stiffness contiguous portions **in tandem** is disclosed by neither document D1 nor document D3. Neither is this contained in any of the other prior art documents or descriptions of alleged prior art brushes that are available to the board (such as the goat's hair brushes with different thickness bristles).

7.5 Document D2 discloses a mascara brush with different areas which are used for different purposes, however these areas are disposed around the brush axis and not along it in tandem.

The appellants argue that one must take document D2 as a single document with a single teaching. The board however considers that the document gives conflicting teachings which moreover often are not clear.

Thus, despite implying in the opening paragraph (column 1, lines 6 to 22) of document D2 that it is concerned with avoiding needing to turn the implement over and showing such an implement in Figures 1 to 7, it shows a turn-it-over brush in Figures 8 to 10.

This opening paragraph of D2 refers to the prior art as being a stiff comb with inflexible teeth to apply the mascara and a brush to separate the lashes. The document D2 gives no clear information elsewhere to contradict this statement, indeed in Figure 10 it looks as if the thicker bristles are in the bottom applying and coating portion instead of in the upper smoothing and aligning portion. Thus the teaching of the document D2, although unclear, seems to point in the opposite direction to the present invention. Even though the bristles in the bottom portion of the prior art brush have different thicknesses it is not the different thicknesses which are made use of in performing the different tasks.

Moreover on the face of it document D2 would appear unpromising to the skilled person interested in spiral mascara brushes because the construction of carefully arranged brush elements in different areas disposed around the brush axis is unachievable in a **spiral** mascara brush.

Thus the board finds that it would not be obvious to use the teachings of document D2 to make the mascara brush of document D1 into a brush as claimed in claim 1 of this auxiliary request. Even taking also the teachings of document D3 into account would not change the board's finding.

- 7.6 The dependent claims 2 to 6 of this auxiliary request correspond to the dependent claims 6 to 10 as originally filed and as granted so that no objection arises under Article 123 EPC.
8. The subject-matter of claim 1 of Auxiliary Request 8 ("Third Auxiliary Request") is thus patentable as required by Article 52 EPC. The patent may therefore be

maintained amended based on this allowable independent claim and on claims 2 to 6 which are dependent on claim 1.

The description and drawings are at present still in the version as granted but will need adaptation to the new claims, eg to delete brushes which are not covered by these claims and to acknowledge the prior art documents D3 and D2.

The case is therefore remitted to the opposition division in accordance with Article 111(1) EPC to have this adaptation carried out before maintaining the patent.

9. Regarding the "Eidesstattliche Versicherung" by Georg Karl, if it had been in the public interest to admit it, then, even at this late stage, the board would have decided to do so. However even if proved, the allegations would not change the board's decision on the appeal as a whole. Therefore the board finds it unnecessary to remit the case to the first instance specifically for examination of these allegations and thus unnecessary to award costs to the respondents for the extra effort which would then be needed in countering these allegations.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent with the following claims, and a description and drawings to be adapted.


Claims 1 to 6 as filed with the letter dated 19 April 1996 and called in said letter the third auxiliary request.

The Registrar:



N. Maslin

The Chairman:



C. Andries

Handwritten initials:
K/S.
L/SK

