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(54) **SEPARATING DEVICE FOR HAIR**

(57) The present invention relates to a separating device for separating a plurality of locks of hair, comprising: a substantially plate shaped base 50 having an oblong shape; at least two teeth or prongs 30, parallel to each other, extending along a direction substantially perpendicular to a main extension direction of the base 50, teeth or prongs 30 being spaced apart by a value D so as to define a first collection area A1 of hair, in which the area A1 has a section defined by the sides of the teeth or prongs and by a profile C1, in which said teeth or prongs have a terminal end shaped to create a recess which defines a second area A2 for hair collecting the said recess has a section defined by a profile C2. The overall conformation of the device is such that, in a configuration of use, the hair is divided into a plurality of first locks which are selected and directed by flowing in said first area A1 and in a plurality of second locks which are selected and directed by flowing in said second area A2, the flowing profile C1 of the second locks being spaced from the flowing profile C2 of the first locks and therefore can be easily separated from the first locks.



Fig. 7

Description

Technical field of the invention

[0001] The present invention relates to a hair separating device, in particular a device shaped to allow the separation of hair into locks and the selection of the locks of hair to be treated, for example to be colored with a dye, to allow a selective distribution of a hair product.

State of the art

[0002] The techniques for applying products for hair dyeing involve the use of pointed elements that are slid by the hairdresser on the head to be treated, to trace a series of profiles, proceeding from one side to the other of the hair to be treated.

[0003] To obtain a natural effect, and evenly distributed over the entire hair, the operation is repeated a plurality of times, at a plurality of lengths of the hair to be treated.

[0004] Depending on the product used, and on the final coloring effect to be obtained, the traced profiles have a wave pattern such as sinusoidal, peaks or steps.

[0005] In general, the hair to be treated is first divided into main areas and then further divided into more or less large sectors depending on the desired final effect and depending on the specific shape of the head. Only later is made the division into locks, that are kept separate through the use of hair foils.

[0006] Therefore, in all hair dyeing processes, the step of separating the hair into locks is crucial both in terms of production time and the quality of the coloring obtained.

[0007] In the known technique, the definition and trend of the profiles traced for the division into locks are related to the manual skills and experience of the hairdresser or the operator assigned to applying the dye.

[0008] The disadvantage of known type dyeing processes is that an operator must define each profile and adjust both the length distance between one profile and the other, and the relative distance between the peaks of the same profile, making the distribution operations of the dye a sort of bottleneck in terms of time and efficiency, and therefore in terms of costs of the entire dyeing process.

[0009] Furthermore, the manual subdivision can generate errors due to inexperience or simply to the operator's distraction.

[0010] Furthermore, the freedom of defining the profiles makes it practically impossible to reproduce the same pattern of the subdivision profile in a subsequent treatment.

[0011] A further disadvantage is that in the case of dyeing at home, in addition to the amplification of the aforementioned errors, a user tends to distribute a quantity of product far greater than that necessary, causing not only a bad result in terms of coloring but also a risk in terms of scalp chemical toxicity.

Summary of the invention

[0012] Therefore, the technical problem posed and solved by the present invention is that of providing a device for separating hair into locks, which allows to overcome the drawbacks mentioned above with reference to the known prior art.

[0013] This problem is solved by a device according to claim 1.

[0014] Preferred features of the present invention are present in the claims dependent on them.

[0015] The present invention provides some relevant advantages.

[0016] In particular, the feature of making it possible to separate several locks at the same time allows to reduce the time required to proceed with the application of a cream dye.

[0017] Furthermore, the possibility of obtaining dimensionally similar locks allows to optimize the aesthetic result of the dyeing.

[0018] A further advantage is that the flowing profiles of the first and second locks are configured in such a way as to allow easy separation.

[0019] A still further advantage is that the device according to the present invention allows to divide a thickness of hair even into three or four series of locks at the same time.

[0020] A further advantage is that the device is dimensionally compact and in particular has an ergonomically shaped gripping portion.

[0021] Other advantages, characteristics and methods of use of the present invention will become evident from the following detailed description of some embodiments, presented by way of example and not of limitation.

Brief description of the figures

[0022] Reference will be made to the figures of the attached drawings, wherein:

Figure 1 shows a front view of a first embodiment of the device according to the present invention;

Figure 2 shows a front view of a further alternative embodiment of the device of Figure 1;

Figure 3 shows a front view of a still further embodiment of the device according to the present invention;

Figure 4 shows a front view of an alternative embodiment of the device according to the present invention;

Figure 5a shows a front view of a further alternative embodiment of the device according to the present invention;

Figure 5b shows a front view of an alternative embodiment of the device of Figure 5a;

Figure 6 shows a front view of a second embodiment of the device according to the present invention;

Figure 7 shows a representative view of a configu-

ration of use of the device according to the present invention.

Detailed description of preferred embodiments

[0023] With reference to Figure 1, a first embodiment of the separating device for separating a plurality of locks of hair, is generally denoted with 100.

[0024] The separating device described here, for example shaped like a comb, comprises a substantially plate shaped base 50 having an oblong conformation and at least two teeth or prongs 30 parallel to each other, extending along a direction substantially perpendicular to a main extension direction of the base 50.

[0025] In particular, the teeth or prongs 30 are made of plastic material, for example a plastic material resistant to high temperatures and/or to the chemical agents of hair dyes, for example of polyamide or equivalent.

[0026] As shown in the figures, the teeth or prongs 30 of the device according to the present invention are spaced apart by a value D so as to define a first hair collection area A1.

[0027] Area A1 has a section defined by at least a portion of the lateral surface of each of the two teeth or prongs 30 and by a profile C1 of the base 50.

[0028] Preferably, the teeth or prongs 30 have a width, intended as an extension in the main extension direction of the separating device 100, at least equal to the distance D between two teeth or prongs 30 in sequence.

[0029] Advantageously, each tooth or prong 30 of the device according to the present invention has a recess, at its own distal end 13, shaped to define a second hair collection area A2.

[0030] The second area A2 has a section defined by at least one profile C2 of the base 50.

[0031] The overall conformation of the device is such that, in a configuration of use, as shown in Figure 7, once a thickness of hair to be separated has been selected, preferably kept under tension, by means of a single passage the hair is separated into a plurality of first locks, which are selected and directed by flowing in the first collection area A1, and in a plurality of second locks, which are selected and directed by flowing in the second hair collection area A2.

[0032] In particular, the profile C1, for the flowing of the first locks, is spaced - along the direction of extension of the prongs - from the flowing profile C2 of the second locks.

[0033] Preferably, the distance between the profiles is equal to at least twice the distance D between two prongs in sequence.

[0034] In this way, advantageously, the manual separation of the second separated locks from the first locks is facilitated.

[0035] In the first preferred embodiment, shown in Figure 1, the profile C2 of the device 100 has a cusp O, that is a pointed end comprised between two portions of the profile C2, at a minimum point of the profile C2.

[0036] Advantageously, the presence of the cusp O allows the obtaining of a natural effect of the hair after dyeing, due to the triangular extension of the second flowing area A2 which allows a subdivision of the second locks with a three-dimensional effect.

[0037] In particular, as shown in the figures, the profile C2 has two inclined linear portions that intersect at the cusp O.

[0038] A central angle α is defined between the two inclined portions. Depending on the width, and the more or less accentuated three-dimensional effect, which you want to define for the second locks, the angle α has a value between 20 (narrower locks) and 100 degrees (wider locks). Preferably, as shown in Figures 1 to 3, the angle α is equal to 45 degrees.

[0039] The planar profile C1 basically acts to define a width of the first area A1 and therefore of the first locks to be separated, a width that remains constant along the entire thickness of the hair to be separated.

[0040] This planar profile C1 can be used, for example, in techniques that do not require coloring of the first locks.

[0041] In an alternative embodiment, the profile C1 has a curved shape, for example has the shape of a semicircumference.

[0042] Advantageously, the circular extension of a portion of the first flowing area A1 allows a subdivision even of the first locks with a slight three-dimensional effect that gives a soft effect to the distribution of the color on the dyeing hair.

[0043] Further embodiments, for example indicated with 102 in Figure 3, are made to obtain more or less contrast in the final aesthetic effect.

[0044] In particular, the presence of the cusp O also in the profile C1 allows to obtain a more defined and uniformly distributed natural effect of the hair after dyeing, due to the triangular extension of the first flowing area A1 which allows a subdivision of the first locks with a three-dimensional effect.

[0045] A further embodiment of the device according to the invention comprises at least a gull wing profile C2, or shaped like a merlon of a castle, or a profile having two portions shaped like a semicircumference, which intersect at the cusp O, in such a way to define a second substantially convex area A2.

[0046] This profile is particularly advantageous when it is desired to highlight, for each lock, a central area of reduced width.

[0047] Preferably, for an effect to create greater uniformity of the coloring on the treated hair, a device 103 is used, as shown in Figure 4, in which the profile C1 also has two portions shaped like a semicircumference, or gull wings, as described above.

[0048] Advantageously, to ensure a natural effect of the hair dyeing, the profile C1 is substantially identical to the profile C2.

[0049] In the examples described here, the teeth or prongs 30 have a thickness, measured along a hair flowing direction, at least equal to a thickness of the base 50.

[0050] In a still further alternative embodiment, the device 104 comprises a profile C2 having at least two recesses and at least two cusps in such a way as to define a third area A3 for making a third series of locks.

[0051] In particular, as shown in Figure 5a, the two recesses of the profile C2 have profiles with minimum points having different heights or having minimum points spaced apart, so as to allow the separation of the series of third locks, which slide in the section of the A3, from the series of second locks that flow into the section of area A2.

[0052] An alternative embodiment of the device 104 is shown in figure 5b and comprises a profile C2 having at least three recesses and at least three cusps in such a way as to define a fourth area A4 for making a fourth series of locks.

[0053] Preferably, the two recesses of the profile C2 which define the third area A3 and the fourth area A4 have profiles with minimum points having substantially the same height or having minimum points equally spaced from the minimum point of the second recess that defines the second area A2.

[0054] Therefore, the embodiment shown in figure 5b is advantageous for obtaining third locks flowing in the sections of areas A3 and A4, in which the third locks are closer than those obtainable with the device shown in figure 5a.

[0055] A second embodiment of the device 200 comprises a plurality of recesses 20 at the profile C1 in such a way as to obtain a division into threads of the first lock.

[0056] As shown in the figures, the device according to the present invention comprises a gripping portion 80, optionally having a tapered end 18 to allow in any case the ease of positioning of the device when not in use and in order to guarantee the availability of a pointed element.

[0057] Preferably, the gripping portion 80 has an ergonomic portion 38 to facilitate the comfortability of gripping and handling the device during use.

[0058] The present invention has been described up to now with reference to preferred embodiments. It is to be understood that there may be other embodiments that refer to the same inventive core, as defined by the scope of the claims set out below.

Claims

1. Separating device (100,101,102,103,104,105; 200) for separating a plurality of locks of hair, comprising:

- a base (50), substantially plate shaped, having an oblong conformation;
- at least two teeth or prongs (30), parallel to each other, extending along a direction substantially perpendicular to a main extension direction of said base (50), said teeth or prongs (30) being spaced apart by a value (D) so as to define a first hair collection area (A1), said area (A1) hav-

ing a section defined by the sides of the teeth or prongs and by a profile (C1),

wherein said teeth or prongs (30) have a terminal end shaped to form a recess which defines a second area (A2) for collecting the hair, said recess having a section defined by a profile (C2);

the overall conformation being such that, in a configuration of use of the separating device, the hair is separated into a plurality of first locks which are selected and directed by flowing in said first area (A1) and in a plurality of second locks which are selected and directed by flowing in said second area (A2), said flowing profile (C1) for the second locks being spaced from said flowing profile (C2) for the first locks along said substantially perpendicular direction.

2. Device (100,101,102,103,104,105; 200) according to the preceding claim, wherein said profile (C2) has a cusp (O), or a pointed end comprised between two portions of said profile (C2), at a minimum point of the profile (C2).
3. Device (100,101,102,104,105; 200) according to any one of the preceding claims, wherein said profile (C2) has two inclined linear portions which intersect at said cusp (O).
4. Device (100,101,102,104,105; 200) according to any one of the preceding claims, wherein said two inclined linear portions of the profile (C2) which intersect at said cusp (O) define a central angle α comprised between 20 and 100 degrees, optionally equal to 90 degrees.
5. Device (103) according to claim 1 or 2, wherein said profile (C2) has two portions, shaped like a semicircumference, which intersect at said cusp (O) in such a way as to define between them said second area (A2) substantially convex.
6. Device (100) according to any one of the preceding claims, wherein said profile (C1) is linear.
7. Device (101) according to any one of the preceding claims, wherein said profile (C1) is curvilinear.
8. Device (102; 103) according to any one of the preceding claims, wherein said profile (C1) is shaped like said profile (C2).
9. Device (104, 105) according to any one of the preceding claims, wherein said profile (C2) has at least two further inclined linear portions which intersect at a further cusp (O) to define at least a third area (A3).
10. Device (100,101,102,103,104,105; 200) according to any one of the preceding claims, wherein a dis-

tance between said cusp of said profile (C2) and a minimum point of said profile (C1) is greater than or equal to at least twice the distance (D) between said two teeth or prongs (30).

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11. Separating device (100,101,102,103,104,105; 200) according to any one of the preceding claims, wherein said teeth or prongs (30) have a thickness, measured along a hair flowing direction, at least equal to a thickness of said base (50).

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12. Device (100,101,102,103,104,105; 200) according to any one of the preceding claims, wherein said base comprises a gripping portion (80), optionally having a tapered end (18).

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13. Device (100,101,102,103,104,105; 200) according to any one of the preceding claims, wherein said grip portion (80) has an ergonomic portion (38).

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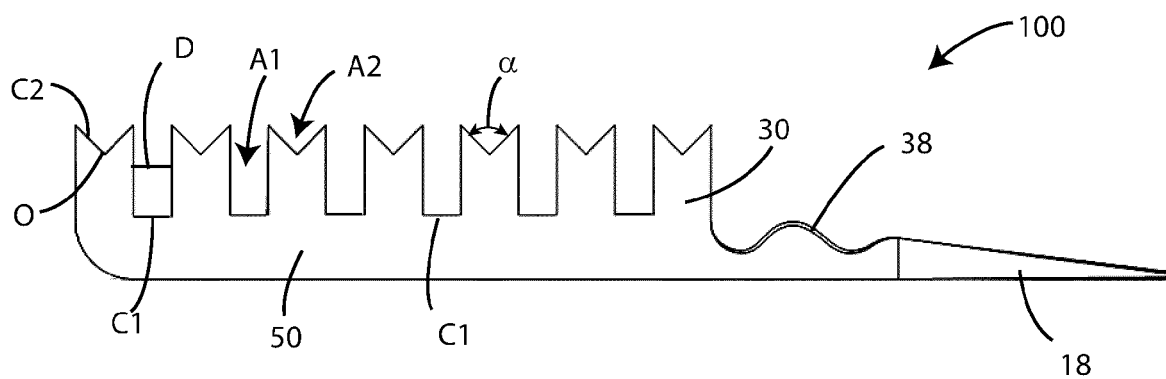


Fig. 1

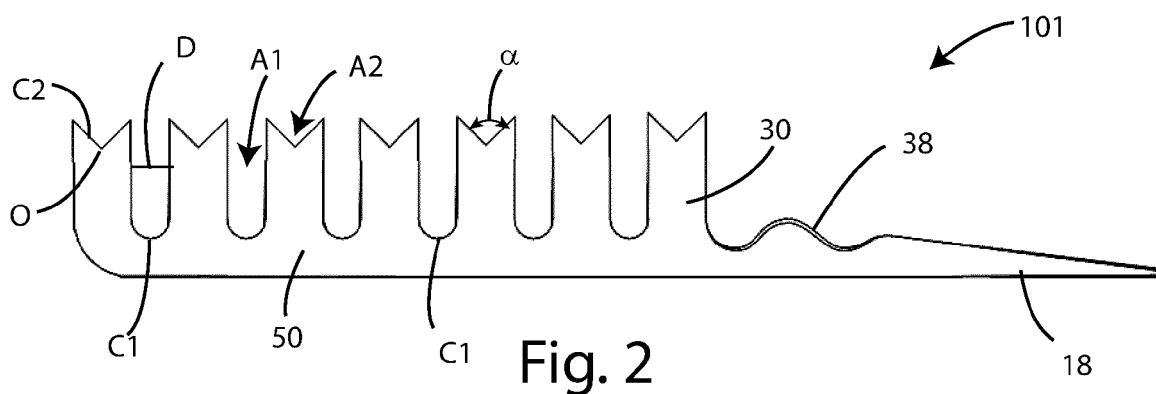


Fig. 2

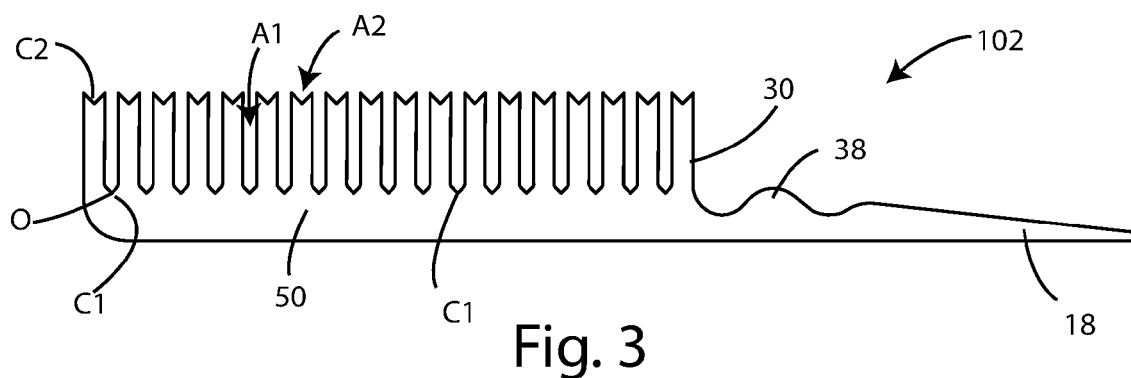


Fig. 3

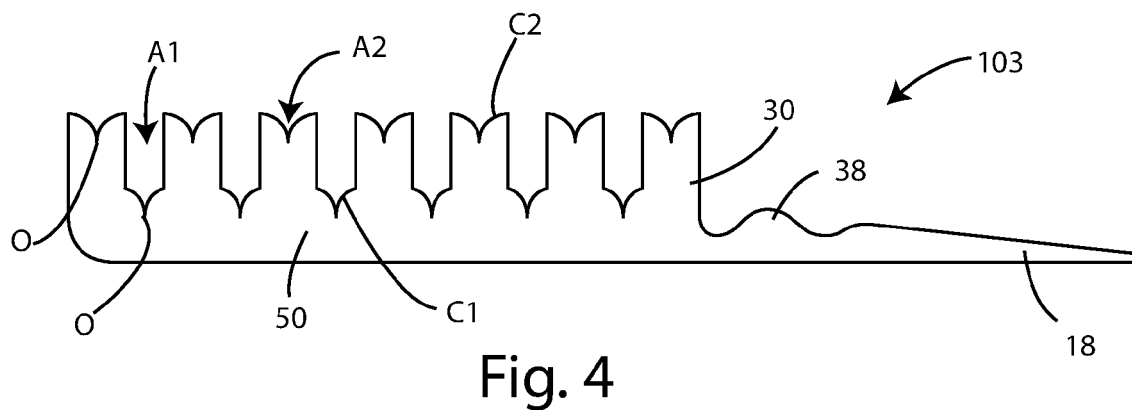
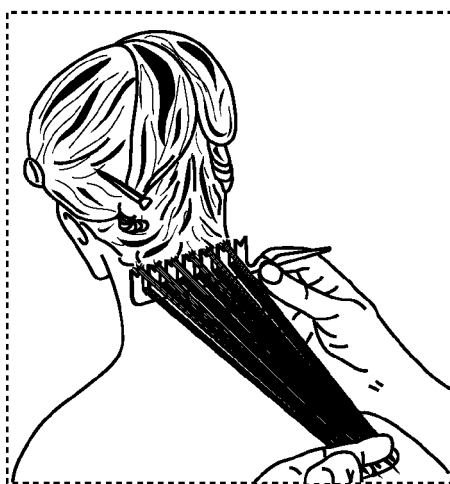
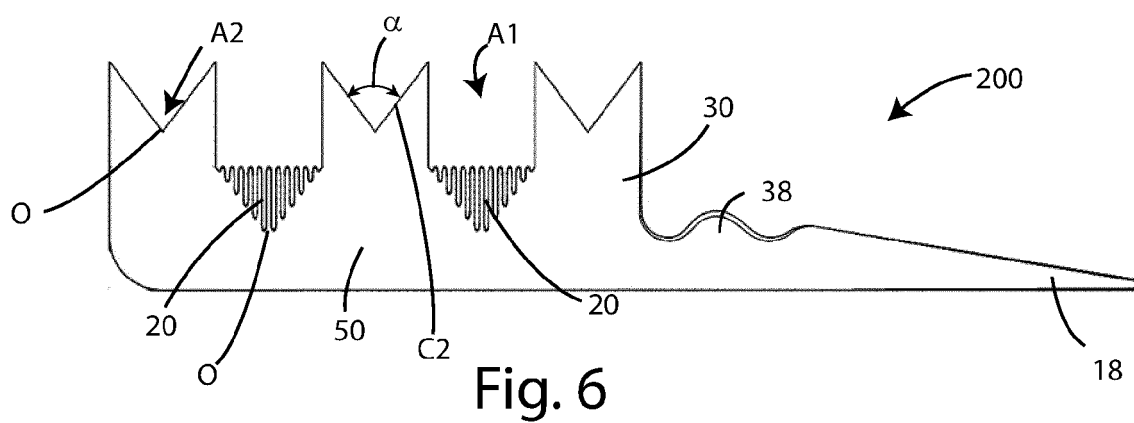
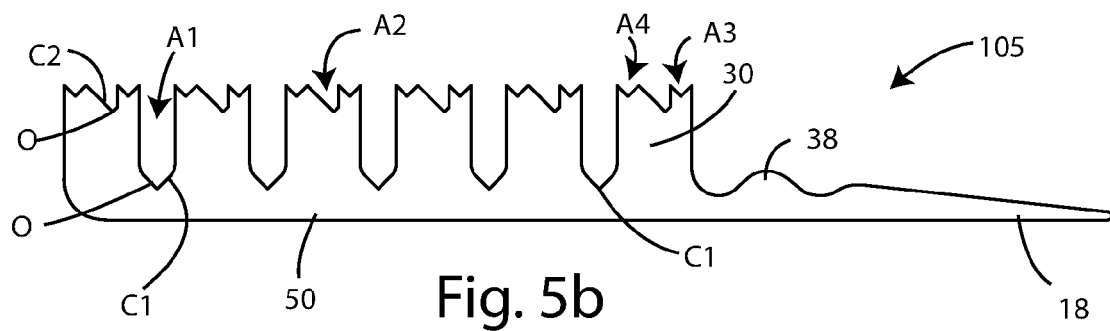
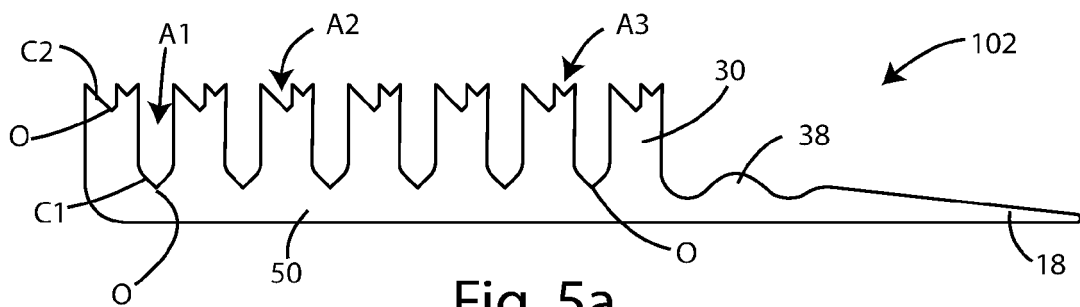


Fig. 4





EUROPEAN SEARCH REPORT

Application Number
EP 21 15 7174

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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 26 April 2021	Examiner Ionescu, C
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			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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