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(54) Title: ADHESIVELY ATTACHED, REMOVABLE, REPEATEDLY USABLE FACIAL AND BODY JEWELLERY OF PLANAR AND/OR THREE-DIMENSIONAL EXTENSION, AND ASSOCIATED MANUFACTURING METHOD

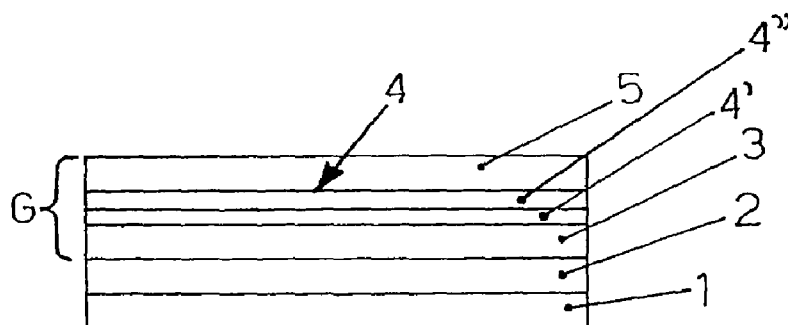


Fig.1

(57) Abstract: Adhesively attached, removable, repeatedly usable facial and body jewellery of planar and/or three-dimensional extension of the type which comprises a base body (4) provided on one face with at least one layer (3) of adhesive with characteristics appropriate for contact attachment onto the user's skin and which has on the other face at least one decorative layer (5), characterized in that said base (4) is of any suitable material which is at least sufficiently soft and flexible and preferably also sufficiently resilient and further characterized in that said decorative layer (5) is such that it does not restrict said characteristics of softness, flexibility and elasticity of said base (4), thanks to which said items of jewellery (G) in question may be attached with their adhesive layer (3) not solely on planar parts of the human body, but also on concave and/or convex parts.



TITLE

"ADHESIVELY ATTACHED, REMOVABLE, REPEATEDLY USABLE FACIAL AND BODY JEWELLERY OF PLANAR AND/OR THREE-DIMENSIONAL EXTENSION, AND ASSOCIATED MANUFACTURING METHOD"

5

DESCRIPTION

Over the course of human history, various means have been used for decorating the human body for a variety of purposes. Ashes, clays and vegetable colourants have been used since ancient times to decorate the human body, for example for striking
10 fear into adversaries in battle or for religious purposes, or for providing a sign of social status and caste and also for enhancing beauty and providing adornment.

To the present day, decorating the human body is very widespread throughout the world from the smallest and least developed to the larger, more technologically
15 advanced societies. Decorating the face, lips and other parts of the body, such as the finger nails, is today a common practice all over the world and the materials used for these purposes are tightly regulated by developed societies because it has been found that some materials may cause allergic reactions, bacterial infections and may introduce toxic substances into the body.

20

Tattoos, created by injecting hypoallergenic dyes or pigments beneath the skin by means of sterile needles, can be applied to any part of the body, whether on flat surfaces or on concave or convex surfaces, and have long been one of the methods used for decorating the human body, but their use has not been widespread,
25 especially in western civilization, because they are painful to apply and are difficult and costly to remove.

It is for this reason that methods for tattooing the human body were modified during the 1980s and 1990s with the aim of making the operation less painful and making
30 the decorations more readily removable and, in the wake of these new methods,

"temporary" tattoos were devised which have met with great success, especially among children and teenagers, and which involve providing a likewise coloured decoration on a flexible multilayer support, protected on one side by a siliconized film, the removal of which uncovers an adhesive surface which can be caused to
5 adhere to the selected, usually flat, part of the human body by being pressed on. The decoration is enclosed between this first adhesive layer and a second, likewise adhesive, hypoallergenic layer, coated externally with a thin attaching film with an ultraviolet filter which protects the decoration of the tattoo when it is exposed to sunlight and onto this coating there is attached a usually water-soluble layer, for
10 example of polyvinyl alcohol which is in turn attached onto a layer, usually of paper, such that, by soaking said latter layer with water, the action of said penultimate water-soluble layer can be cancelled out and the final paper layer removed, so that the thin adhesive tattoo is left behind attached in contact with the skin.

15 Temporary tattoos are not ideal for attachment to undulating and irregular surfaces of the human body, because their initial, multilayer structure makes them somewhat inflexible and thus incapable of conforming to curved and/or low-relief surfaces.

Drawing inspiration from temporary tattoos, costume jewellery decorations have
20 recently been created, for example in the shape of butterflies, small snakes, dolphins, sea horses, flowers and with other designs, enhanced by appropriate selection of colours and by application of variously coloured small stones, glass shapes or crystals, either reflective or opaque, and of beads, the assembly being applied onto a thin base of plastics material which, by means of its own adhesive face, is usually
25 attached to a siliconized paper support such that it can be peeled off and pressed onto a desired part of the human body. These costume jewellery decorations are rather inflexible and thus can only be applied onto relatively flat surfaces of body, similarly to temporary tattoos, from which they differ however by being more attractive and by being repeatedly removable and reusable, also because their
30 adhesive surface can periodically be regenerated by application of a hypoallergenic

glue supplied by the producers of these adornments.

Another method for decorating the human body is body painting, which has all the advantages of the above-stated costume jewellery decorations and, in comparison with the latter, may be applied onto any part of the body, even onto curved and low-relief parts, but, because it is produced by highly skilled artists, it is very costly and can be used only once because it is usually removable with water, alcohol or other solvents which are not harmful to the human body.

10 The invention proposes a new method for decorating the human body, which has all the advantages of temporary tattoos and of the above-stated costume jewellery decorations and of decorations created by body painting, without on the other hand exhibiting the limitations and negative aspects of all these known methods.

15 This new decoration for the human body, which is described as "facial and body jewellery", is specified in the appended claim 1) and in the subsequent subordinate claims. The features of this new decoration and the advantages arising therefrom will emerge clearly from the following description of a preferred embodiment thereof, illustrated purely by way of non-limiting example in the figures of the single appended
20 sheet of drawings, in which:

- Fig. 1 shows a diagram of the sequence of the essential layers which make up the facial and body jewellery according to the invention;

25 - Fig. 2 shows a perspective view of one possible application onto the ear of the human body of a jewellery decoration of the type in question;

- Fig. 3 shows a perspective view of another application onto a human ear of a jewellery decoration according to the invention;

30

- Fig. 4 shows some details of the decoration of Figure 3 along the section IV-IV.

It will be noted from Figure 1 that the decoration according to the invention comprises at least one protective and supportive base 1, usually of planar or three-dimensional shape (see below), for example of plastics or of kraft or parchment paper, on which is applied a release layer 2, for example based on silicone or Quilon®, on which rests in a manner which is peelable or detachable as required, the layer 3 of a sufficiently breathable hypoallergenic adhesive, a pressure-sensitive and contact agent, of any type suitable for its purpose (see below), which in turn is integral with the base 4 of predominantly planar (or three-dimensional, see below) extension of the jewellery decoration according to the invention, which is produced using any elastomer usable for such uses which is sufficiently soft, flexible, resilient and strong, hypoallergenic and preferably appropriately breathable and a good thermal conductor, for example based on resilient polyurethane, such as for example that commercially known by the brand name Duron®, or on resilient silicone and/or other elastomers conventionally used without allergic reactions in contact with human skin.

The base 4 may be characterized by a constant or a variable thickness which is nevertheless such as to impart great flexibility thereto and said base 4 will be characterized by having a planar or three-dimensional profile and an outline or layout of any type suitable for achieving a desired decorative purpose, as will for example be stated below. The base 4 may be substantially transparent or may be coloured with appropriate pigments or may be partially transparent and partially coloured.

With regard to the flexibility of the base support 4, the thickness of said support may be between 0.05 and 0.12 mm, preferably approx. 0.085 mm.

Since the base support 4 made solely with the above-stated resilient material would be somewhat limp and likely to collapse on itself, so making it difficult to apply and in general use item of jewellery in question, said support 4 may advantageously be

made from at least two superposed layers and specifically with a lower layer 4' of a thickness of approx. 0.040 mm, composed of said non-allergenic resilient material which is very similar to human skin, and with an upper layer 4" of a thickness of approx. 0.045 mm, of a compatible plastics material suitable for imparting sufficient body and rigidity to the underlying layer, for example of PET, which among other things has proved to be an excellent material onto which to attach the decorative finishes 5 (see below).

The base layer 4 in fact serves for application and attachment of the coloured and artistic decorations which are indicated 5 overall and are suitable for completing the decorative jewellery, thus composed of specific paints and inserts, in a similar manner to costume jewellery decorations of known type. The inserts may be attached to the base 4 with glues and/or by any appropriate method obvious to a person skilled in the art. The layer 5 may also comprise layers for protecting the paints from the degrading action of sunlight and/or other protective and/or attachment layers appropriate for their purpose. The thickness of the decorative layer 5 will be predetermined and be such that it does not restrict the flexibility, elasticity and optional breathability of the base layer 4 and will thus be such that it does not compromise the application properties of the jewellery G formed by layers 3 to 5. The decorative layer 5 may comprise a picture created with enamels and paints in general, in such a manner as to produce a decoration with lines and varying levels of shading, similar to the type made by hand in current body painting decorations.

It may be noted from Figure 2 how the item of jewellery G' made as in Figure 1 has in the present example the shape of a small snake which, once detached from the supportive and protective layers 1 and 2, can be attached with its own adhesive surface 3, onto any, even non-planar, part of the body, for example onto the edge of the helix E of the pinna P, over both the front and rear sides and finally being attached to a part of the cheek close to the person's ear. In this case, the item of jewellery G' has a predominantly planar extension and its wearability as shown by the

example of Figure 2 is ensured by the great softness, flexibility and elasticity of the base 4 and is not compromised by the decorations 5 applied thereto. If the item of jewellery were characterized by a large surface, for example if it represented the petals and leaves of a flower, a butterfly with its wings unfolded or similar, the item of jewellery will preferably be perforated, namely characterized by dispersed empty spaces, in order to improve the conformability of the jewellery to the surface of the body to which it is attached, to increase the artistic merit of said jewellery and to allow the skin to which the jewellery is attached to breathe more readily through said empty spaces.

Figure 3 shows another item of jewellery G" according to the invention which, unlike the other G', has a partially three-dimensional shape and is thus intended to rest on a supportive and protective base 1 and 2 which is not planar but instead likewise three-dimensional, which reproduces the hollow between the helix E and antihelix A of the pinna P, where said jewellery will be applied, as shown both in Figure 3 and in the details of Figure 4.

In a similar manner to that provided for costume jewellery decorations, the items of facial and body jewellery according to the invention may be removed from the user's body, replaced on their supportive and protective base 1, 2 and may be reused several times and, for this purpose, a glue similar to or compatible with that of the original adhesive layer 3 will be supplied so that the adhesive properties of said layer may periodically be regenerated. The glue may preferably be in liquid form and will be packaged in a small bottle equipped with a small brush or other suitable dispenser or applicator so that the glue can be accurately spread onto the rear contact surface of the items of jewellery G, G', G" in question. This glue may advantageously be composed of polymers and/or of acrylic resins, with emulsifiers and with an aqueous solvent. Since it does not contain the solvents normally based on acetone or acetate which are present in the glues known for attaching costume jewellery decorations

mentioned in the introduction to the present description, the glue according to the invention will be odourless and truly non-allergenic.

5 The items of jewellery described may conveniently be packaged in small, optionally transparent, protective boxes together with the abovementioned small bottle of glue.

10 It will be understood that the description refers to a preferred but not the only embodiment of the invention, to which numerous variants and especially structural modifications may be made without consequently abandoning the essence of the invention, as set out above, as illustrated and as claimed below. In the claims, the reference numerals shown in brackets are purely indicative and do not limit the scope of protection of said claims.

CLAIMS

1. Adhesively attached, removable, repeatedly usable facial and body jewellery of planar and/or three-dimensional extension of the type which comprises a base
5 body (4) provided on one face with at least one layer (3) of adhesive with characteristics appropriate for contact attachment onto the user's skin and which has on the other face at least one decorative layer (5), characterized in that said base (4) is of any suitable material which is at least sufficiently soft, sufficiently resilient, of limited thickness and, if need be, perforated and thus very flexible and further
10 characterized in that said decorative layer (5) is such that it does not restrict said characteristics of softness, flexibility and elasticity of said base (4), thanks to which said items of jewellery (G) in question may be attached in contact with their adhesive layer (3) not solely on planar parts of the human body, but also on concave and/or convex parts, while adhering perfectly and uniformly thereto.

15 2. Facial and body jewellery according to Claim 1), characterized in that said base (4) is made with any elastomer also for medical use, is non toxic, is non-allergenic on contact with human skin, is strong and exhibits good breathability and/or thermal conduction properties, for example of resilient polyurethane.

20 3. Facial and body jewellery according to Claim 2), characterized in that said base (4) has a thickness of between 0.05 and 0.12 mm, preferably of approx. 0.085 mm and is preferably formed by at least two superposed layers, the lower of which (4') has a thickness of approx. 0.040 mm and is composed of said resilient, non-
25 allergenic material which is very similar to human skin, while the upper layer (4'') has a thickness of approx. 0.045 mm and is composed of a compatible plastics material suitable for imparting sufficient body and rigidity to the underlying layer, for example of PET, which is an excellent material onto which to attach the decorative finishes (5).

4. Facial and body jewellery according to one or more of the preceding claims, characterized in that said base (4) is transparent and/or coloured or colourable.

5. Facial and body jewellery, characterized by having a conformation with a predominantly planar extension (G'), or partially with a planar extension and partially with a three-dimensional extension (G").

6. Facial and body jewellery according to the preceding claims, characterized in that the decorative layer (5) may comprise a picture created with enamels and paints in general, in such a manner as to produce a decoration with lines and varying levels of shading, similar to the type made by hand in current body painting decorations.

7. Method for manufacturing facial and body jewellery according to the preceding claims, characterized in that said items of jewellery (G) are temporarily attached with their adhesive surface (3) onto a planar or three-dimensional support (1, 2) of any non-stick material from which said item of jewellery may readily be detached before being applied to the user's body and on which it may then be replaced for the period of time which elapses between successive uses, it being provided that the adhesive layer (3) of said items of jewellery may periodically be regenerated in its contact adhesive properties by application of a suitable, strongly adhesive and flexible, non-allergenic adhesive, it being provided that said items of jewellery may conveniently be packaged in non-bulky boxes, together with a small bottle with the glue and a means for dispensing or applying said glue.

8. Method according to Claim 7), characterized in that the glue contained in said bottle is in liquid form and is composed of polymers and/or of acrylic resins, with emulsifiers and with an aqueous solvent, in such a manner as to be non-allergenic and odourless.

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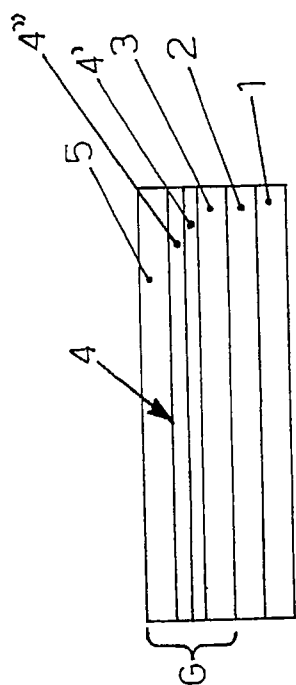


Fig.1

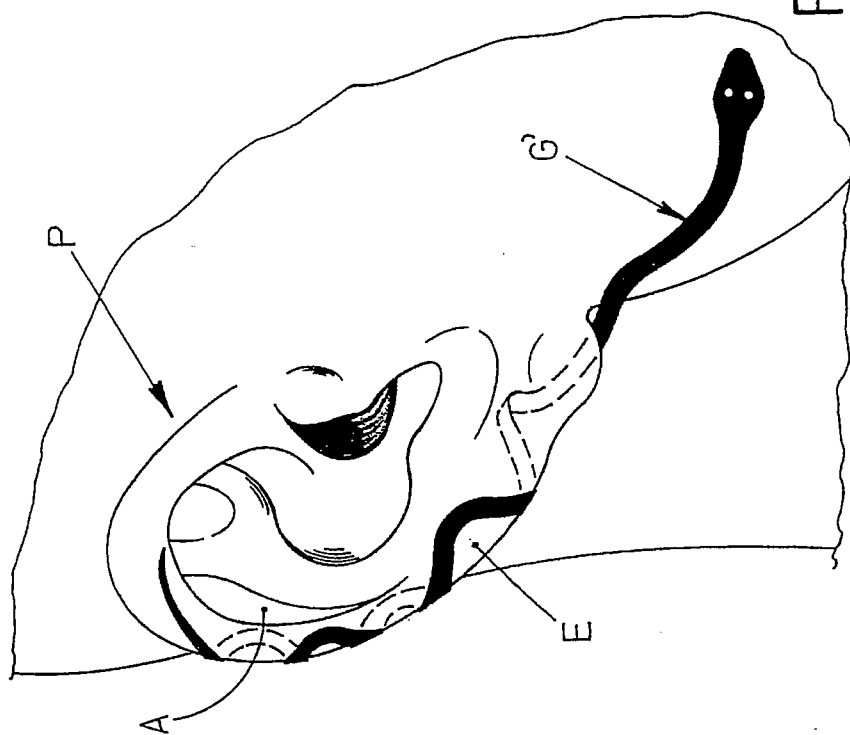


Fig.2

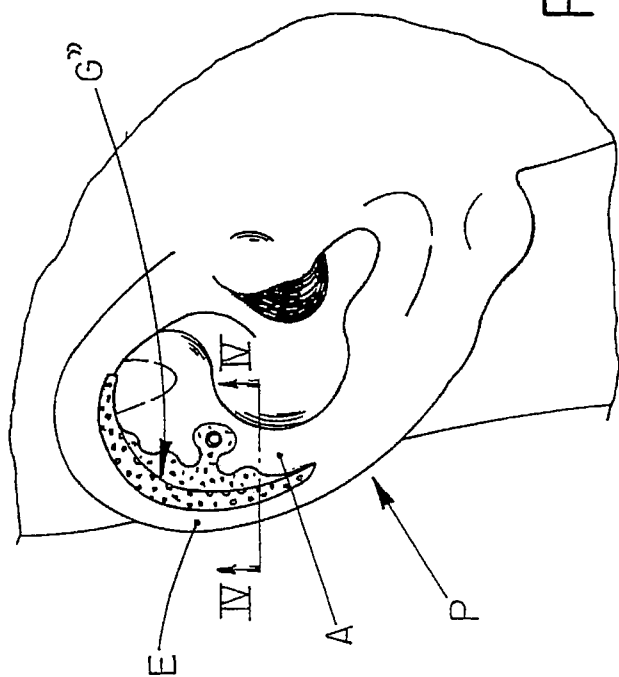


Fig.3

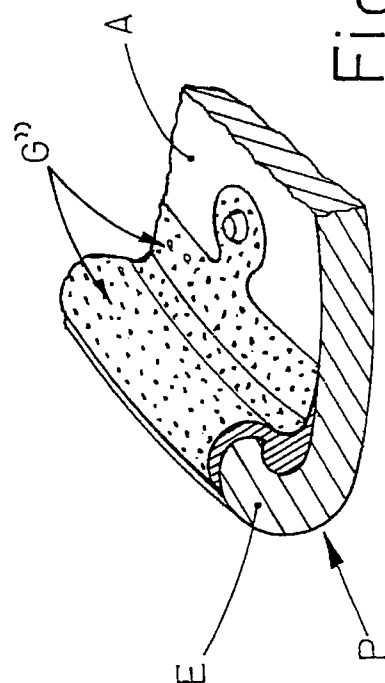


Fig.4

INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2008/067304

A. CLASSIFICATION OF SUBJECT MATTER

INV. A44C7/00 A44C15/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A44C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99/52392 A (CASTILHO INES DE [FR]) 21 October 1999 (1999-10-21)	1,4,7,8
Y	page 1, lines 32-36 page 2, line 5 page 3, lines 24-28 page 4, lines 7-19 page 5, lines 14-17,28-33; figures 1,2,3a	2,3,5,6
Y	US 5 279 132 A (SWAIM PENNY E [US]) 18 January 1994 (1994-01-18) column 5, lines 15-17 column 6, lines 20-27 column 8, lines 47-59; figure 3	2,3,5,6
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Further documents are listed in the continuation of Box C.



See patent family annex.

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X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

16 March 2009

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27/03/2009

Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2008/067304

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 233 845 A (D ANDRADE BRUCE M [US]) 10 August 1993 (1993-08-10) column 2, lines 40-55 column 4, lines 16-23 column 4, lines 53-68; figure 2 -----	1
X	US 2002/020190 A1 (CLARK KERRIE A [US] ET AL) 21 February 2002 (2002-02-21) paragraphs [0011], [0012], [0014]; [0033], [0037], [0038]; figures 1-4 -----	1,7

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2008/067304

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