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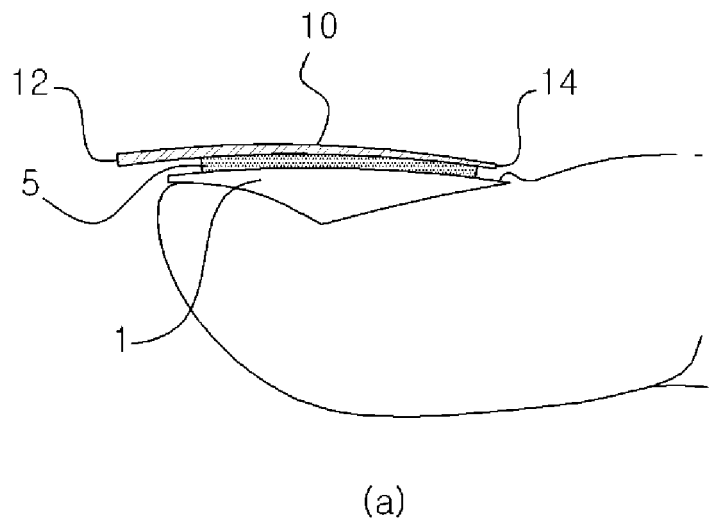
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(54) **Dust-free artificial nail**

(57) Provided is a dust-free artificial nail (100), which includes: one end (112) formed to have a curvature in the same direction of a free edge of a nail (1), the other end (114) located at an opposite side to one end (112); an artificial nail bed (110) having nail walls located at both sides of one end (112) and the other end (114) and having a nail shape so that an adhesion surface (119) thereof is attached to the nail (1); and a snug fit (120) extending from the other end (114) of the artificial nail bed (110) and having a curved surface toward the adhe-

sion surface (119). By using the dust-free artificial nail, a gap between the nail and the artificial nail bed may be minimized, which may prevent impurities from being caught therebetween, maintain an adhesive force of the adhesive for a long time, prevent the artificial nail bed from being separated from the nail as the other end and the nail wall of the artificial nail bed are collided with an article during activity, and maintain the other end of the artificial nail bed in contact with a cuticle even though the nail grows for a certain period.

FIG. 1



Description

TECHNICAL FIELD

[0001] The following disclosure relates to a dust-free artificial nail, and in particular, to a dust-free artificial nail which seals a gap between the artificial nail and a nail in order to prevent a hair from being caught between the artificial nail and the nail.

BACKGROUND

[0002] Generally, an artificial nail bed with a nail shape is attached to a nail to freely change the change of the nail. At this time, the artificial nail bed is attached to the nail by using an adhesive.

[0003] However, as shown in FIG. 1, a gap creates between an artificial nail bed 10 and a nail 1 due to the thickness of an adhesive 5 used for attaching the artificial nail bed 10. Therefore, if unconsciously touching hairs in a state where the artificial nail bed 10 is attached to the nail, a hair is caught at the gap between the nail and the artificial nail bed 10 and stuck to the adhesive 5, which makes the adhesive dirty. In this case, the adhesive performance of the adhesive deteriorates, and the hair caught at the artificial nail due to the adhesive causes a pain and thus gives a person an unpleasant feeling. In other words, while the hair is caught, impurities may easily penetrate into the adhesive, which deteriorates the adhesive force of the adhesive 5 and allows the artificial nail bed 10 to be easily separated from the nail 1. In addition, since the other end 14 and a nail wall 16 of the artificial nail bed 10 are exposed, when a person grips an article by the hand, the other end 14 or the nail wall 16 may collide with the article, which may make the artificial nail bed 10 be instantly separated from the nail 1. At this time, if the artificial nail bed 10 is abruptly separated from the nail 1, an impact may be applied to the nail 1, which may cause a pain. In addition, while a person is moving, the other end 14 and the nail wall 16 of the artificial nail bed 10, exposed out, may scratch a human body and make a hurt thereto.

SUMMARY

[0004] An embodiment of the present disclosure is directed to providing a dust-free artificial nail which prevents a hair from being caught at an artificial nail by sealing a gap between the artificial nail and the nail and allows an adhesive force of an adhesive to be maintained for a long time by preventing impurities from penetrating into the adhesive while the hair is caught.

[0005] In one general aspect, there is provided a dust-free artificial nail, which includes: one end formed to have a curvature in the same direction of a free edge of a nail; the other end located at an opposite side to one end; an artificial nail bed having nail walls located at both sides of one end and the other end and having a nail shape so

that an adhesion surface thereof is attached to the nail; and a snug fit extending from the other end of the artificial nail bed and having a curved surface toward the adhesion surface.

[0006] According to an embodiment of the present disclosure, the snug fit may further extend from the wall of the artificial nail.

[0007] In addition, the dust-free artificial nail may further include an adhesive attached to the adhesion surface; and a protrusion formed on the adhesion surface at a border line of the adhesive toward one end of the dust-free artificial nail.

[0008] At this time, the thickness of the protrusion may be 50% to 100% of the thickness of the adhesive.

[0009] In addition, the length of the snug fit may be 1% to 30% of the length of the artificial nail bed.

[0010] In addition, the snug fit may be inclined at 5° to 80° from an upper surface of an end of the artificial nail bed oriented to a nail wall toward the adhesion surface.

[0011] According to the present disclosure, since a gap between the nail and the artificial nail bed may be minimized, it is possible to prevent a hair from being caught at the artificial nail when the hair is arranged by using the hand, thereby minimizing the inconvenience of a user. In addition, since it is minimized that dust enters through the gap between the nail and the artificial nail bed, the adhesive may maintain its adhesive force for a long time, and it is possible to prevent the artificial nail bed from being separated from the nail as the other end and the nail wall of the artificial nail bed are collided with an article during activity. In addition, even though the nail grows for a certain period, the other end of the artificial nail bed may be kept in contact with a cuticle.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The above and other objects, features and advantages of the present disclosure will become apparent from the following description of certain exemplary embodiments given in conjunction with the accompanying drawings, in which:

FIG. 1 is a cross-sectional view showing a general artificial nail attached to the nail;

FIG. 2 is a perspective view showing a dust-free artificial nail according to an embodiment of the present disclosure;

FIG. 3 is a cross-sectional view showing the dust-free artificial nail according to an embodiment of the present disclosure;

FIG. 4 is a front view showing the dust-free artificial nail according to an embodiment of the present disclosure; and

FIG. 5 is a partially-sectioned view showing the dust-free artificial nail according to an embodiment of the present disclosure.

[Detailed Description of Main Elements]

[0013]

1: nail
 100: dust-free artificial nail
 112: one end
 116: nail wall
 119: adhesion surface
 Q: cuticle
 5: adhesive
 110: artificial nail bed
 114: the other end
 118: protrusion
 120: snug fit

DETAILED DESCRIPTION OF EMBODIMENTS

[0014] Hereinafter, exemplary embodiments will be described in detail with reference to the accompanying drawings.

[0015] FIG. 2 is a perspective view showing a dust-free artificial nail 100 according to an embodiment of the present disclosure.

[0016] As shown in FIG. 2, the dust-free artificial nail 100 according to the present disclosure includes one end 112 formed to have a curvature in the same direction as a free edge of a nail 1, the other end 114 located at an opposite side to one end 112, an artificial nail bed 110 having nail walls 116 located at both sides of one end 112 and the other end 114 and having a nail shape so that an adhesion surface 119 thereof is attached to the nail, and a snug fit 120 extending from the other end 114 of the artificial nail bed 110 and curved toward the adhesion surface 119.

[0017] The snug fit 120 may not only extend from the other end 114 but also extend along the nail wall 116. As the snug fit 120 is formed to extend from the other end 114 and the nail wall 116 of the artificial nail bed 110, a gap formed between the artificial nail bed 110 and the nail 1 may be closed due to the thickness of an adhesive 5.

[0018] In other words, if the adhesive 5 is applied to an adhesion surface 119 which is a lower surface of the artificial nail bed 110, the artificial nail bed 110 is attached to the nail 1 by means of the adhesive 5. At this time, since the adhesive 5 has a certain thickness, a gap is formed at an contour line of the artificial nail bed 110

where the adhesive 5 is not applied, and impurities such as hairs and dust penetrate into the gap. Therefore, the adhesive 5 and the artificial nail bed 110 may be contaminated, and the adhesive force of the adhesive 5 may be deteriorated due to the impurities. In order to solve this problem, in the present disclosure, the snug fit 120 is formed at a contour portion of the artificial nail bed 110 except for its one end 112, namely to extend from the other end 114 and the nail wall 116.

10 [0019] FIG. 3 is a cross-sectional view showing the dust-free artificial nail 100 according to an embodiment of the present disclosure, which is attached to the nail 1.

[0020] First, the snug fit 120 of the dust-free artificial nail 100 according to the present disclosure is formed to extend from the other end 114 of the artificial nail bed 110. Since the snug fit 120 is curved toward the adhesion surface 119, it is possible to prevent impurities from penetrate from the other end 114 where a cuticle Q is located. At this time, in the dust-free artificial nail 100, as shown in FIG. 3a which is an enlarged view, the snug fit 120 located at the other end 114 may be attached to the nail 1 in a state of being further curved with the force toward one end 112 while supporting the cuticle Q.

[0021] If the dust-free artificial nail 100 is attached to the nail 1 so that the snug fit 120 receives a force, even though the nail 1 grows for a certain period, a gap may not be created between the cuticle Q and the dust-free artificial nail 100. In other words, as shown in FIG. 3b which is an enlarged view, if the force supporting the cuticle Q is lessened as the nail 1 grows, the snug fit 120 supports the cuticle Q, and so the degree of curving becomes gentle. Therefore, even though the actual length of the snug fit 120 has not changed but the length of the nail 1 changes, the snug fit 120 keeps in contact with the cuticle Q, and so a gap is not created between the cuticle Q and the dust-free artificial nail 100. By adhering the snug fit 120 to the nail 1 as described above, it is possible to prevent impurities from being caught between the artificial nail bed 110 and the nail 1. In addition, even though the nail grows for a certain period, the snug fit 120 may keep in a contact with the cuticle.

[0022] The dust-free artificial nail 100 according to the present disclosure may also be attached to the nail 1 from the first, as shown in FIG. 3b which is an enlarged view. In other words, the dust-free artificial nail 100 may be attached to the nail so that the snug fit 120 does not receive a force by the cuticle Q.

[0023] In addition, a protrusion 118 may be further formed at the adhesion surface 119 of the dust-free artificial nail 100. The adhesive 5 may not be attached to the entire adhesion surface 119 but may be attached to a part thereof. At this time, since the snug fit 120 is formed except for a portion of one end 112 of the artificial nail bed 110, the adhesive 5 may be isolated from impurities. Further, in a dust-free artificial nail according to an embodiment of the present disclosure, the protrusion 118 may also be installed at one end 112 of the artificial nail bed 110 so that the adhesive 5 is isolated from impurities.

In other words, the protrusion 118 may be formed to protrude at a location of the border line of the adhesive 5 located at one end 112 of the artificial nail bed 110. The protrusion 118 may be formed along the entire border line of the adhesive and also be formed as a plurality of dots. If the protrusion 118 is formed as described above, it is possible to prevent impurities from being stuck in the gap formed by the adhesive 5 at one end 112 of the artificial nail bed 110.

[0024] At this time, the height of the protrusion 118 is preferably 50% to 100% of the thickness of the adhesive 5. For example, if the thickness of the adhesive 5 is assumed to be 1, if the height of the protrusion 118 is smaller than 0.5, a gap between the protrusion and the nail increases, and so impurities may penetrate between the protrusion 118 and the nail 1. If the height of the protrusion 118 exceeds 1, the dust-free artificial nail 100 may not be easily adhered to the nail 1 due to the protrusion 118. In other words, if the height of the protrusion 118 is in the range of 0.5 to 1, even though a gap is present between the protrusion 118 and the nail 1, it is possible to prevent impurities from penetrating through the gap.

[0025] In the dust-free artificial nail 100 according to the present disclosure, the adhesive 5 may be either a double-sided adhesive tape or a nail glue.

[0026] FIG. 4 is a front view showing the dust-free artificial nail 100 according to an embodiment of the present disclosure, which is mounted to the nail 1.

[0027] As shown in FIG. 4, the snug fit 120 extending from the nail wall 116 prevents impurities from being caught in a gap formed between the side of the nail 1 and the artificial nail bed 110 due to the adhesive 5. In addition, it is possible to prevent the artificial nail bed 110 from colliding with an article and being separated from the nail 1, and it is also possible to prevent a human body from being damaged due to an end of the nail wall 116. In other words, different from a conventional artificial nail where the other end 114 and the nail wall 116 of the artificial nail bed 110 are exposed, the dust-free artificial nail 100 according to the present disclosure gives an effect as if the other end 114 and the nail wall 116 of the artificial nail bed 110 come in contact with the nail 1 due to the snug fit 120 extending from the artificial nail bed 110. Therefore, it is possible to prevent the dust-free artificial nail 100 from colliding with an article and being separated, and it is also possible to prevent the other end 114 and the nail wall 116 of the artificial nail bed 110 from scratching and injuring a human body.

[0028] FIG. 5 is a partially-sectioned view showing the dust-free artificial nail according to an embodiment of the present disclosure. Even though FIG. 5 shows only the snug fit 120 connected to the other end 114 of the artificial nail bed 110 for easy understanding, the snug fit 120 connected to the nail wall 116 of the artificial nail bed 110 is also formed with the same conditions and with the same angle and length as the snug fit 120 connected to the other end 114, without being limited to the above.

[0029] As shown in FIG. 5, the dust-free artificial nail

according to the present disclosure has a greater curvature than the artificial nail bed 110. Therefore, the snug fit 120 is curved further toward the adhesion surface 119 in comparison to the artificial nail bed 110. At this time, at a point where the snug fit 120 and the artificial nail bed 110 encounter, an angle Θ between a tangential line of the upper surface of the snug fit 120 and a tangential line of the upper surface of the artificial nail bed 110 is in the range of 5° to 80° . This allows a gap between the artificial nail and the nail to be effectively closed by the snug fit. If the angle Θ is smaller than 5° , the curvature is similar to that of the artificial nail bed, and so hairs or impurities may penetrate thereto. In addition, if the angle Θ exceeds 80° , the terminal of the snug fit 120 may push the nail and apply a force in a direction opposite to the adhesive force of the adhesive 5. Therefore, at a point where the snug fit 120 and the artificial nail bed 110 encounter, the angle Θ between the tangential line of the upper surface of the snug fit 120 and the tangential line of the upper surface of the artificial nail bed 110 is in the range of 5° to 80° .

[0030] In addition, regarding the length ℓ of the snug fit 120, the length connected to the artificial nail bed 110 may vary according to the angle Θ of the snug fit 120. Here, the length of the snug fit 120 is preferably 1% to 30% of the length of the artificial nail bed 110. If the length of the snug fit 120 is smaller than 1% of the length of the artificial nail bed 110, even though the snug fit 120 has an angle Θ of 80° , hairs or impurities may be caught in the gap between the artificial nail and the nail due to the small length. In addition, since the snug fit 120 has a greater curvature than the artificial nail bed 110, if the length of the snug fit 120 exceeds 30% of the length of the artificial nail bed 110, when being applied to the nail, the attachment force of an adhesive tape located at the end of the artificial nail bed 110 formed at a mounting location of the snug fit 120 and near the nail wall may be deteriorated. Therefore, the length of the snug fit 120 is preferably 1% to 30% of the length of the artificial nail bed 110. Here, the length of the artificial nail bed 110 represents not only a length between one end 112 and the other end 114 of the artificial nail bed 110 but also a length till the nail wall 116. Therefore, the length of the snug fit 120 connected to the nail wall 116 is substantially determined based on a length of the artificial nail bed 110 in the width direction.

[0031] While the present disclosure has been described with respect to the specific embodiments, it will be apparent to those skilled in the art that various changes and modifications may be made without departing from the spirit and scope of the disclosure as defined in the following claims.

Claims

1. A dust-free artificial nail, comprising:

one end formed to have a curvature in the same direction of a free edge of a nail;
the other end located at an opposite side to one end;

an artificial nail bed having nail walls located at both sides of one end and the other end and having a nail shape so that an adhesion surface thereof is attached to the nail; and
a snug fit extending from the other end of the artificial nail bed and having a curved surface toward the adhesion surface.

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2. The dust-free artificial nail according to claim 1, wherein the snug fit further extends from the wall of the artificial nail.

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3. The dust-free artificial nail according to claim 1, further comprising:

an adhesive attached to the adhesion surface;
and
a protrusion formed on the adhesion surface at a border line of the adhesive toward one end of the dust-free artificial nail.

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4. The dust-free artificial nail according to claim 3, wherein the thickness of the protrusion is 50% to 100% of the thickness of the adhesive.

5. The dust-free artificial nail according to claim 1, wherein the length of the snug fit is 1% to 30% of the length of the artificial nail bed.

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6. The dust-free artificial nail according to claim 1, wherein the snug fit is inclined at 5° to 80° from an upper surface of an end of the artificial nail bed oriented to a nail wall toward the adhesion surface.

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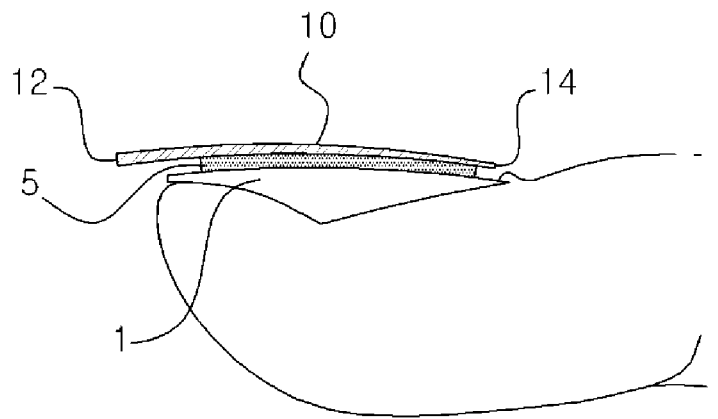
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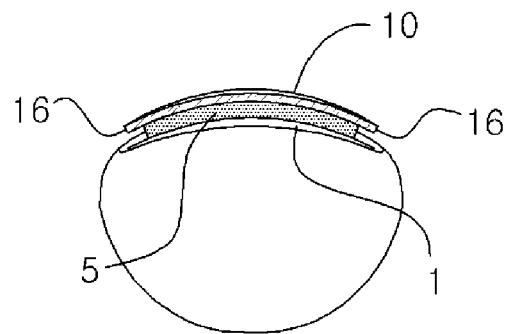
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FIG. 1



(a)



(b)

FIG. 2

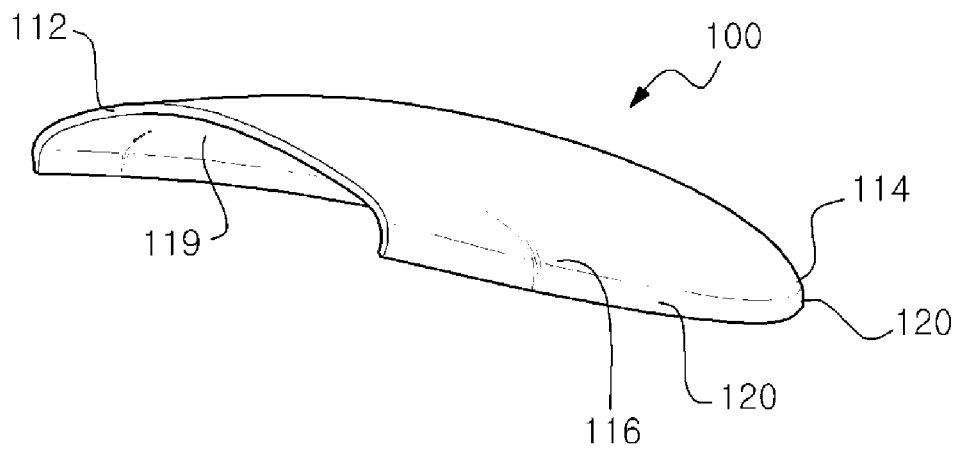


FIG. 3

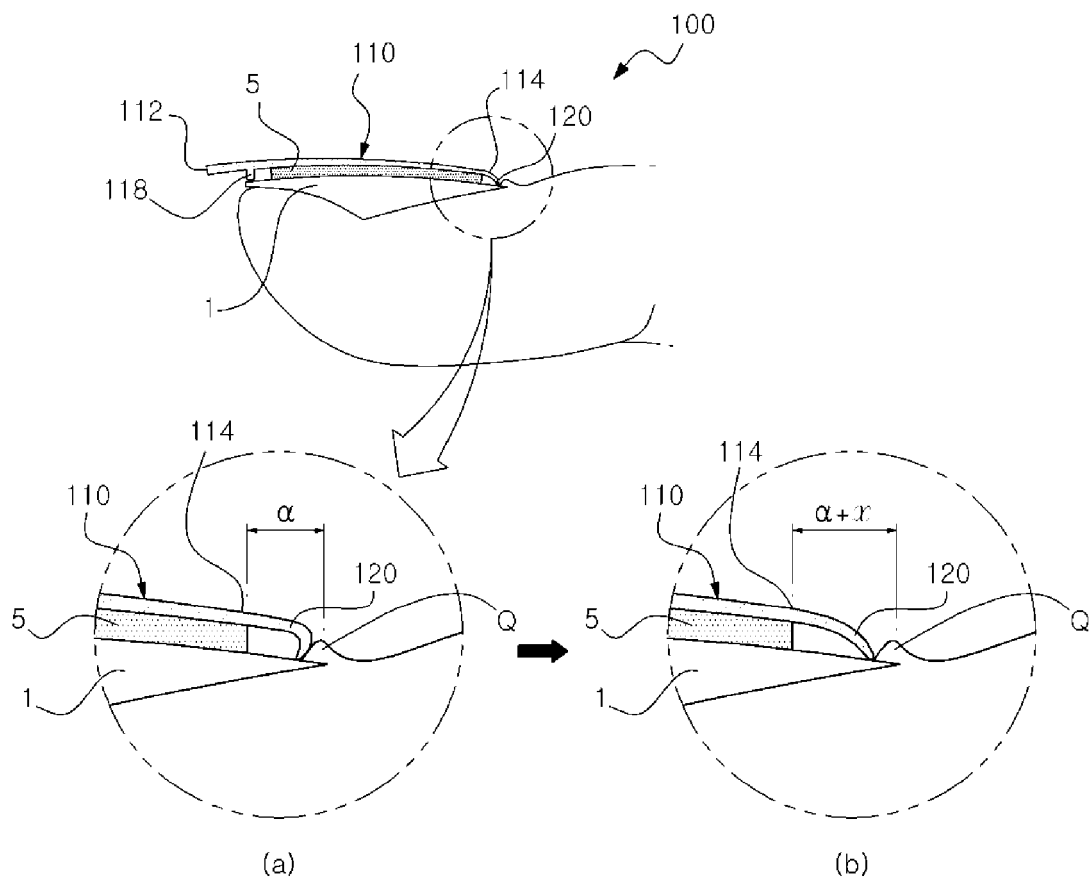


FIG. 4

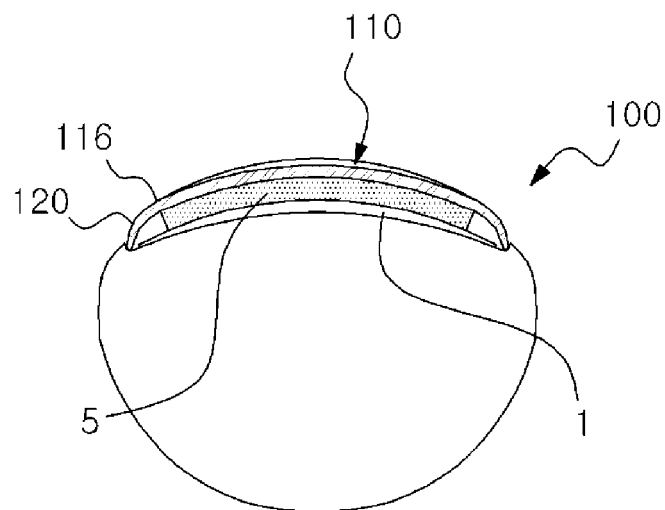
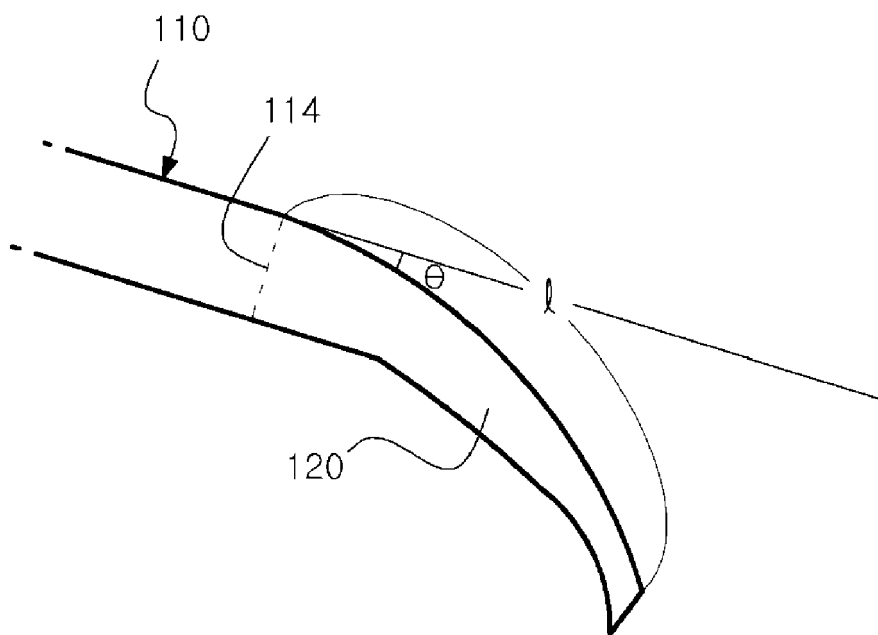


FIG. 5





EUROPEAN SEARCH REPORT

Application Number
EP 12 19 0183

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	US 3 750 684 A (RUSSELL D) 7 August 1973 (1973-08-07) * column 2; figures *	1-6	INV. A45D31/00
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			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 14 March 2013	Examiner Dinescu, Daniela
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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 12 19 0183

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14-03-2013

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82