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(19) **United States**(12) **Patent Application Publication**
PARK(10) **Pub. No.: US 2017/0196276 A1**(43) **Pub. Date: Jul. 13, 2017**(54) **ONE-PIECE TYPE WATER SPORT SUIT
WITH EASY NECK COLLAR CLOSING AND
OPENING***A41F 1/00* (2006.01)*A41D 31/00* (2006.01)*A41D 27/18* (2006.01)(71) Applicant: **Hyuncheol PARK**, Pohang-si (KR)(72) Inventor: **Hyuncheol PARK**, Pohang-si (KR)(21) Appl. No.: **15/322,204**(22) PCT Filed: **Jun. 21, 2016**(86) PCT No.: **PCT/KR2016/006552**

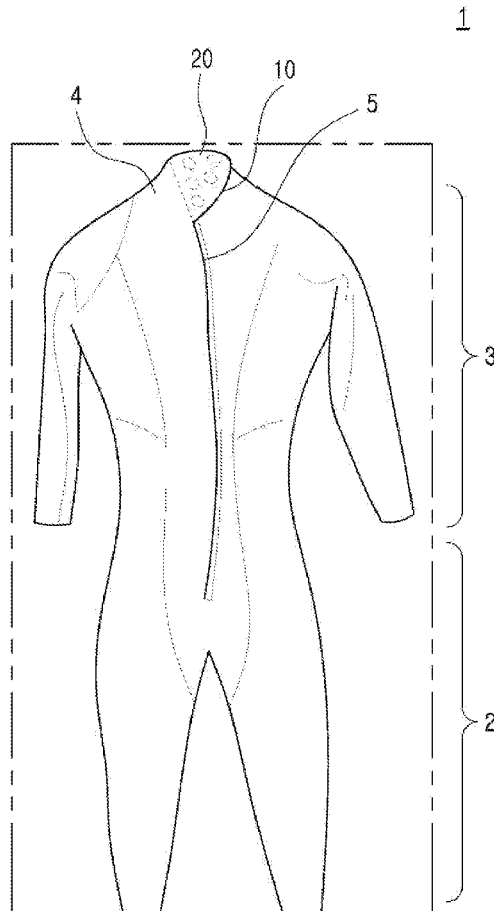
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(2013.01); *A41D 7/00* (2013.01); *A41D*
2400/24 (2013.01); *A41D 2300/322* (2013.01)(57) **ABSTRACT**

An one-piece type water sport suit comprises an leg portion, a torso portion, an arm portion; a neck collar coupled to the torso portion, wherein the collar is cylindrical when the collar is in a horizontally closed state; and first and second attachable/detachable members coupled to the neck collar to allow opening or closing of the collar, wherein the first attachable/detachable member is coupled to the neck collar at a first end thereof, and the second attachable/detachable member is coupled to the neck collar at a second end thereof, wherein the first and second ends are free ends when the collar is in a horizontally open state, wherein the first and second ends face each other, wherein the first attachable/detachable member is magnetically coupled to the second attachable/detachable member.



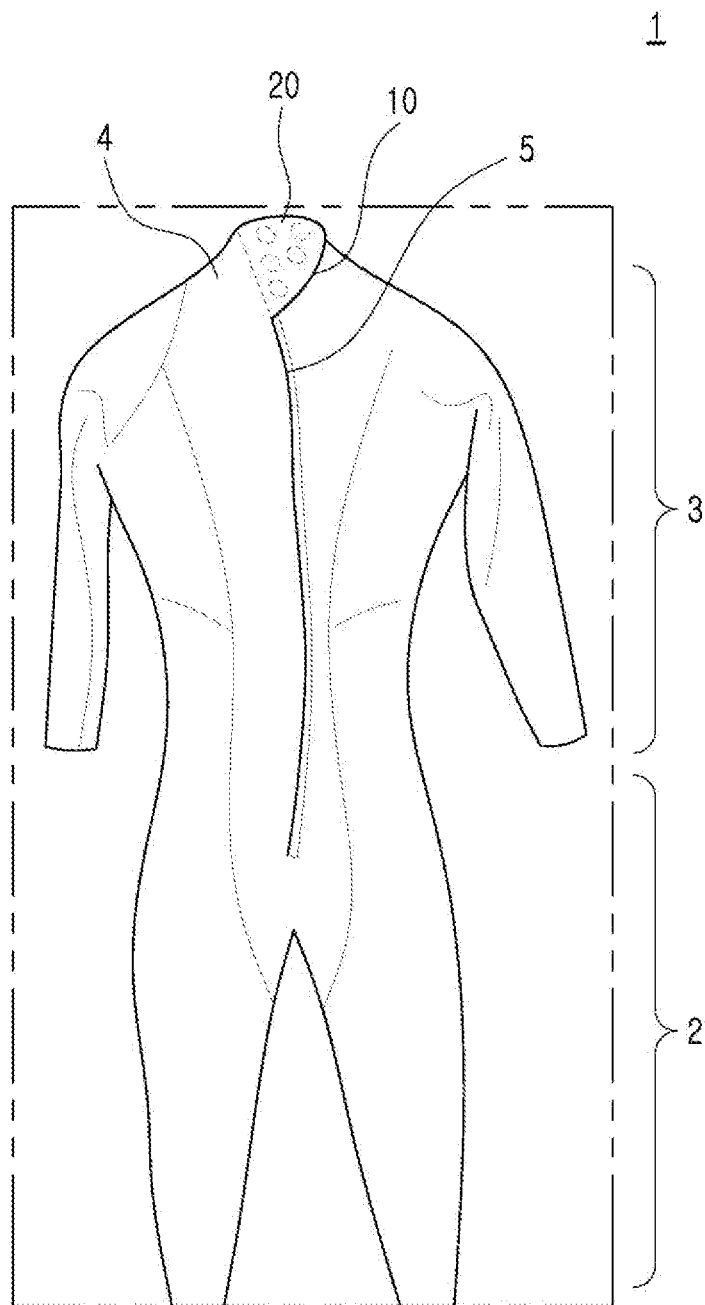
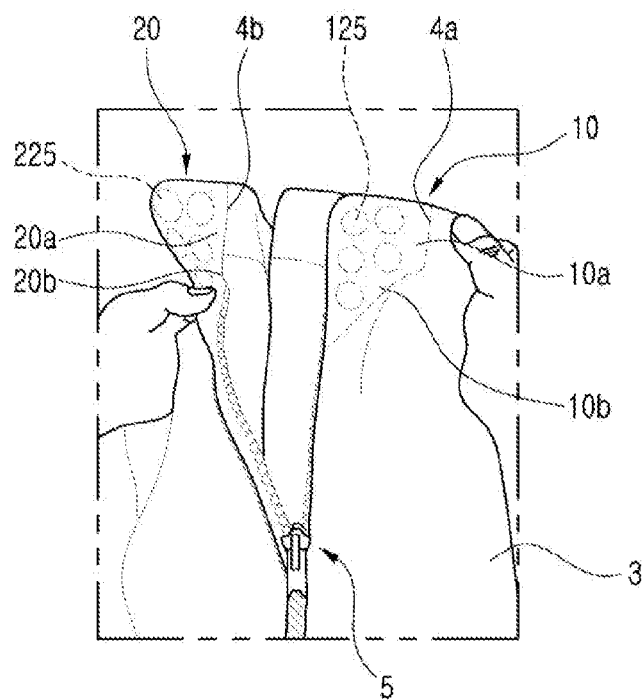
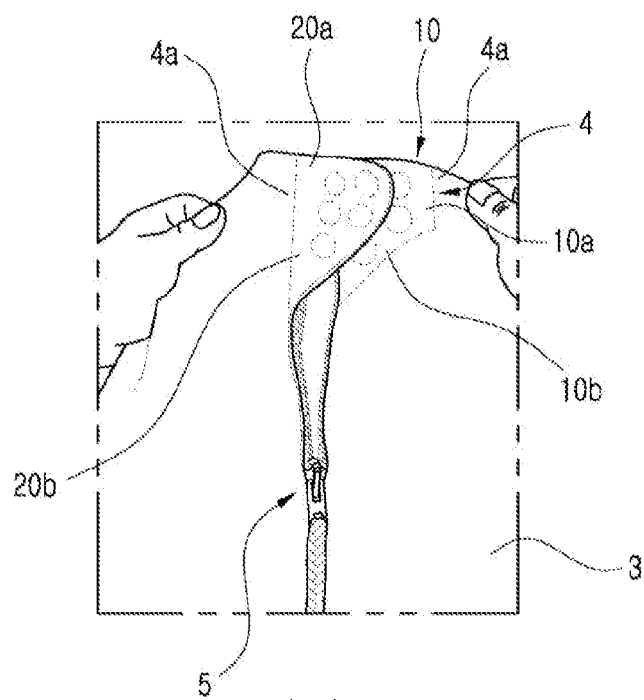


FIG. 1



(a)



(b)

FIG. 2

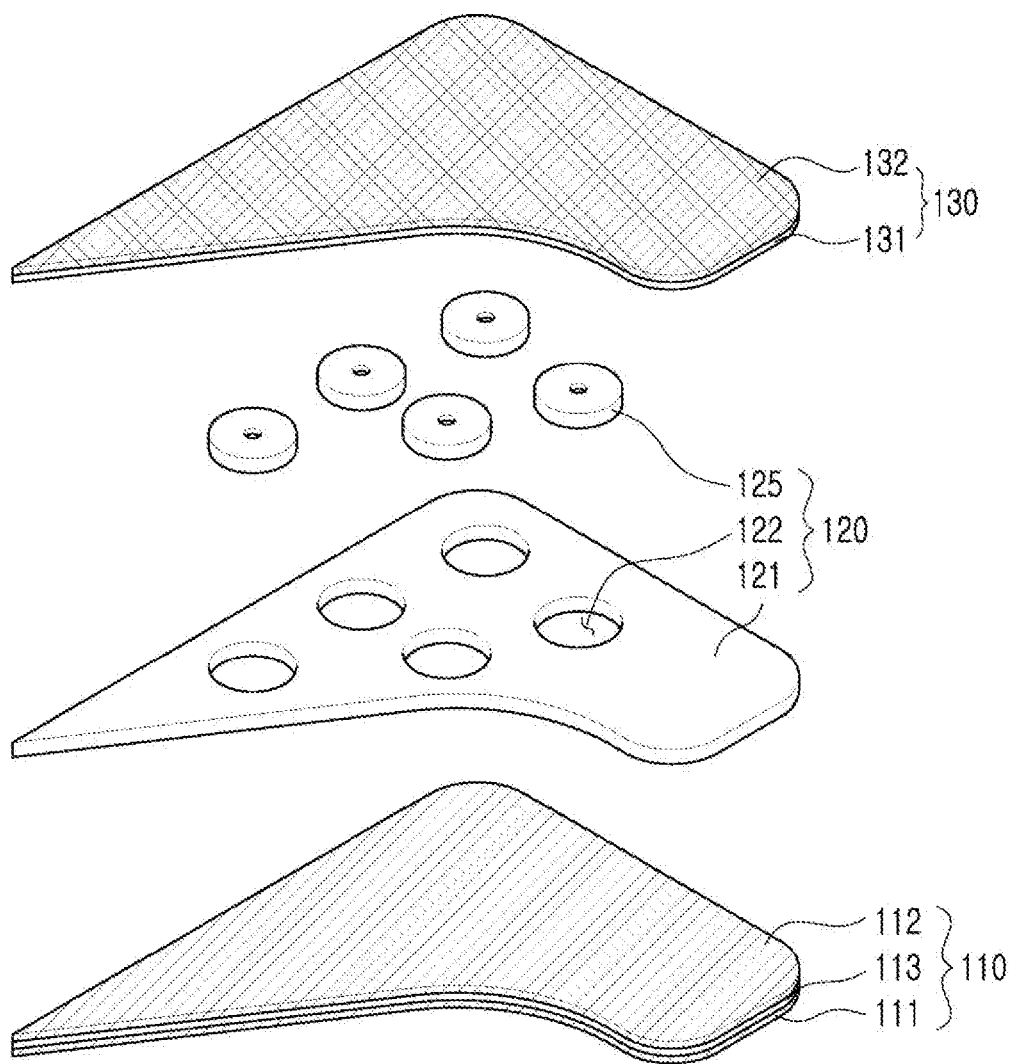


FIG. 3

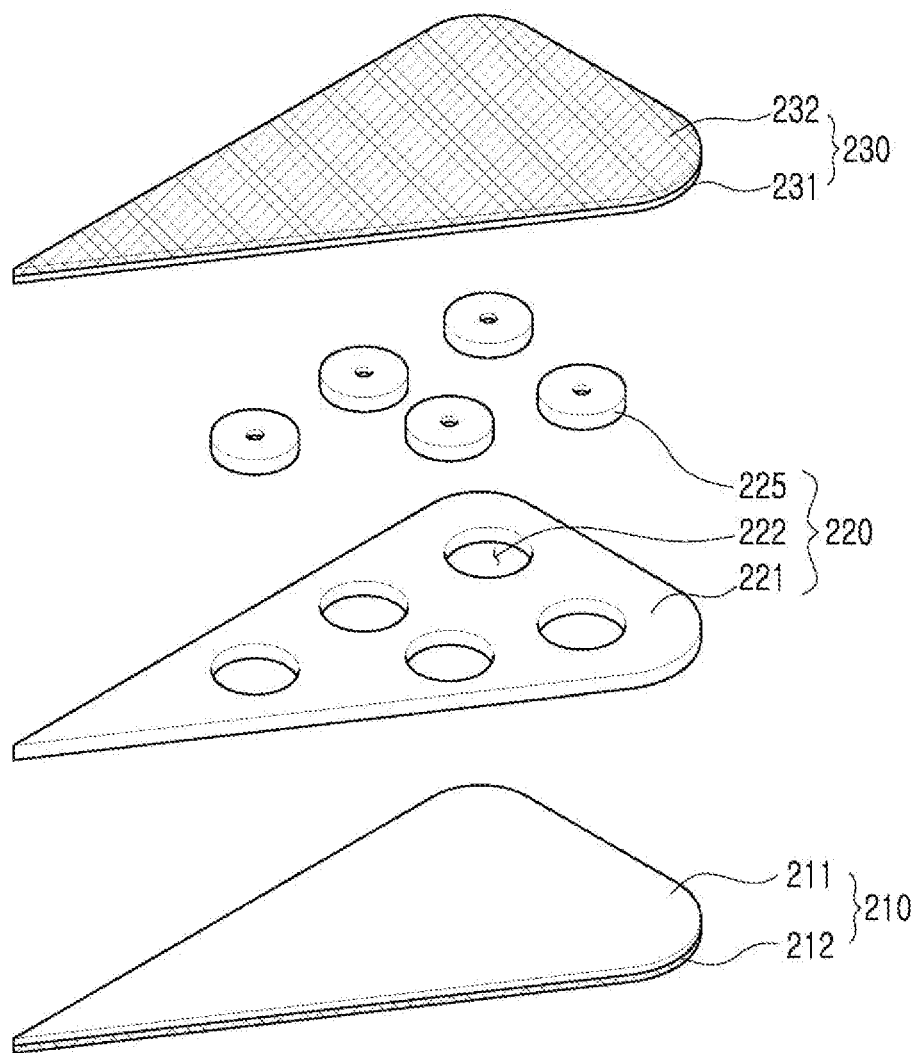
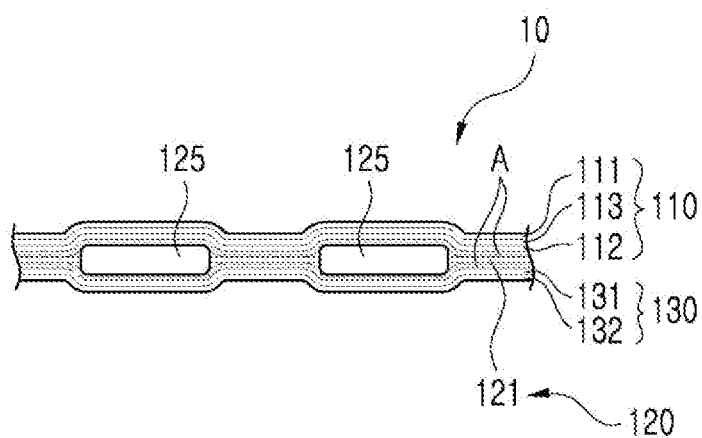
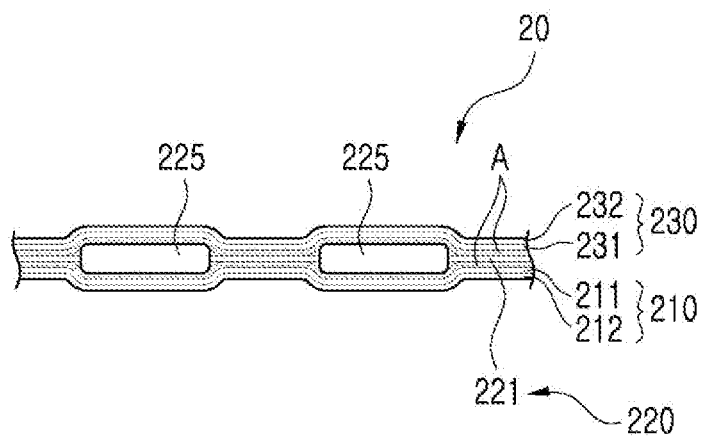


FIG. 4



(a)



(b)

FIG. 5

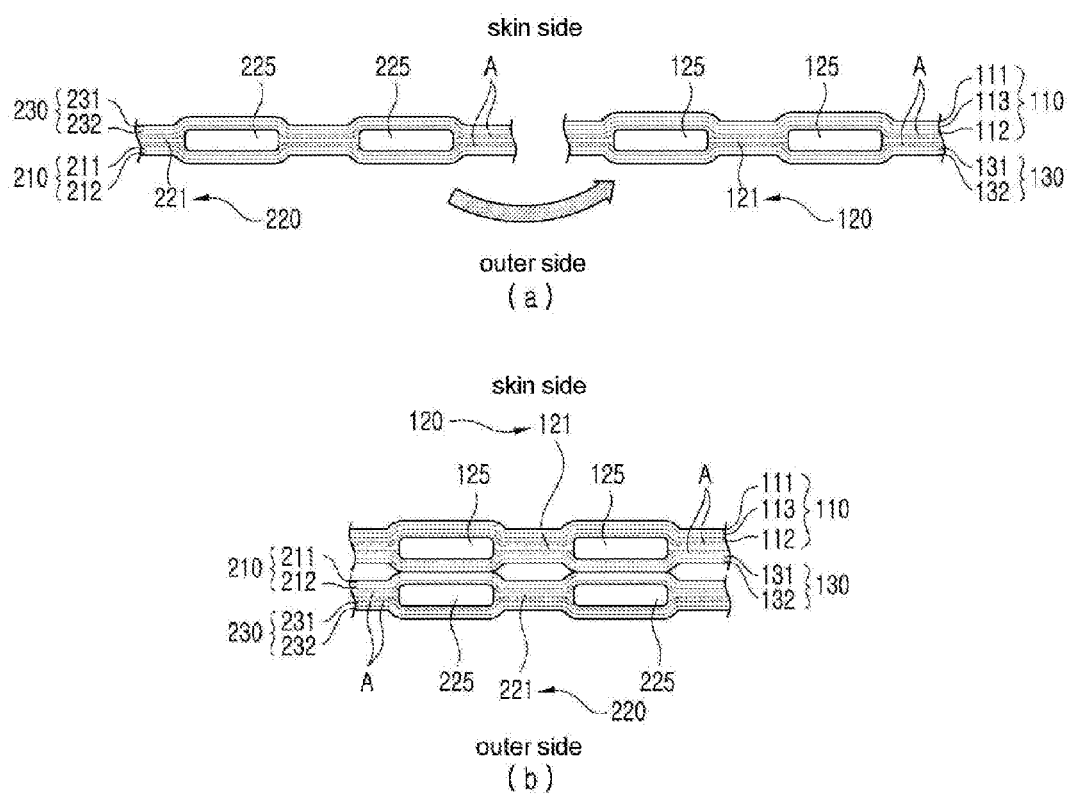


FIG. 6

ONE-PIECE TYPE WATER SPORT SUIT WITH EASY NECK COLLAR CLOSING AND OPENING

BACKGROUND

[0001] Field of the Present Disclosure

[0002] The present disclosure relates to a one-piece type water sport suit with easy neck collar closing and opening function using magnets, and, more particularly, to a one-piece type water sport suit with easy neck collar closing and opening function using magnets wherein the easy neck collar closing and opening function may last for a long time.

[0003] Discussion of Related Art

[0004] A general one-piece type water sport suit is shown in Korean patent No. 10-0727630 (refer to FIG. 22 of this document). The one-piece type water sport suit may have an arm portion, a leg portion and a torso portion.

[0005] A neck collar surrounding the neck is provided at the upper part of the body, and a cover covering the neck collar may be formed at this neck collar.

[0006] In this case, a male Velcro is usually provided at one end of the neck collar, and a female Velcro is formed at the other end of the neck collar.

[0007] However, since the tip of the male Velcro is sharp and the surface is rough, there is a problem that the hair may be caught and the hair may be damaged and the skin may be scratched.

[0008] Further, when the Velcro is used for a long time, there is a problem that the adhesive force of the Velcro deteriorates due to abrasion or the like.

SUMMARY

[0009] This Summary is provided to introduce a selection of concepts in a simplified form that are further described below in the Detailed Description. This Summary is not intended to identify all key features or essential features of the claimed subject matter, nor is it intended to be used alone as an aid in determining the scope of the claimed subject matter.

[0010] The present disclosure is to provide a one-piece type water sport suit with easy neck collar closing and opening function using magnets wherein the easy neck collar closing and opening function may last for a long time and, further, the problem that the hair may be caught and the hair may be damaged and the skin may be scratched may be prevented.

[0011] In one aspect of the present disclosure, there is provided an one-piece type water sport suit comprising: an leg portion, a torso portion, an arm portion; a neck collar coupled to the torso portion, wherein the collar is cylindrical when the collar is in a horizontally closed state; and first and second attachable/detachable members coupled to the neck collar to allow opening or closing of the collar, wherein the first attachable/detachable member is coupled to the neck collar at a first end thereof, and the second attachable/detachable member is coupled to the neck collar at a second end thereof, wherein the first and second ends are free ends when the collar is in a horizontally open state, wherein the first and second ends face each other, wherein the first attachable/detachable member is magnetically coupled to the second attachable/detachable member, wherein the second attachable/detachable member has a first magnet array and the first attachable/detachable member has a second

magnet array or a metal structure, wherein the second attachable/detachable member includes: a first layer facing the first attachable/detachable member when the collar is in a horizontally closed state; a second layer coupled to the first layer and containing therein the first magnet array; a third layer facing outwardly and coupled to the second layer, wherein the third layer acts to reduce friction with water; and a first adhesive layer between the first layer and second layer, and a second adhesive layer between the second layer and third layer.

[0012] In one implementation, the second attachable/detachable member is attachable to or detachable from the first attachable/detachable member in a flap manner, wherein the second attachable/detachable member is implemented as a flap type cover.

[0013] In one implementation, the first attachable/detachable member includes: a first layer contacting a skin of an wearer and having an anti-shock function; a second layer coupled to the first layer and containing therein the second magnet array; a third layer facing outwardly and coupled to the second layer, wherein the third layer acts to reduce friction with water; and a third adhesive layer between the first layer and second layer of the first attachable/detachable member and a fourth adhesive layer between the second layer and third layer thereof.

[0014] In one implementation, the first layer of the first attachable/detachable member includes: an elastic sub-layer; and a textile sub-layer coupled to the elastic sub-layer, wherein the textile sub-layer includes: a first textile sub-layer contacting, on one face thereof, an outer face of the elastic sub-layer, and contacting, on the other face thereof, the skin of the wearer and having an anti-shock function; and/or a second textile sub-layer contacting, on one face thereof, an inner face of the elastic sub-layer, and contacting, on the other face thereof, the second layer of the first attachable/detachable member and having an anti-shock function.

[0015] In one implementation, the second layer of the first attachable/detachable member includes: an elastic sub-layer; and a hole array defined in the elastic sub-layer, wherein the hole array receives the second magnet array or metal array correspondingly and holes in the hole array are spaced from each other.

[0016] In one implementation, the third layer of the first attachable/detachable member includes: an elastic sub-layer facing, on one face thereof, the second layer of the first attachable/detachable member; and a polyurethane coating layer contacting the elastic sub-layer on the other face thereof.

[0017] In one implementation, the first layer of the second attachable/detachable member includes: an elastic sub-layer; and a polyurethane coating layer contacting the elastic sub-layer on an outer face thereof.

[0018] In one implementation, the second layer of the second attachable/detachable member includes: an elastic sub-layer; and a hole array defined in the elastic sub-layer, wherein the hole array receives the first magnet array correspondingly and holes in the hole array are spaced from each other.

[0019] In one implementation, the third layer of the second attachable/detachable member includes: an elastic sub-layer facing, on an inner face thereof, the second layer of the

second attachable/detachable member; and a polyurethane coating layer contacting the elastic sub-layer on an outer face thereof.

[0020] In accordance with the present disclosure, coupling effect can be sustained because there is no damage of magnetic force for a long time as the coupling effect for closing the neck collar is improved by the magnet.

[0021] Further, it can eliminate the uncomfortable feeling of touching the rough Velcro on the skin, and tackling the long hair on the Velcro.

[0022] In addition, because of strong magnetic field to help the blood circulation around the neck, it may be beneficial.

BRIEF DESCRIPTION OF THE DRAWINGS

[0023] The accompanying drawings, which are incorporated in and form a part of this specification and in which like numerals depict like elements, illustrate embodiments of the present disclosure and, together with the description, serve to explain the principles of the disclosure.

[0024] FIG. 1 is a perspective view of a one-piece type water sport suit in accordance with one embodiment of the present disclosure.

[0025] FIG. 2 is a perspective view of a one-piece type water sport suit in accordance with one embodiment of the present disclosure when a neck collar is in a horizontally closed or open mode.

[0026] FIG. 3 is an exploded perspective view of a first attachable/detachable member of the one-piece type water sport suit in accordance with one embodiment of the present disclosure.

[0027] FIG. 4 is an exploded perspective view of a second attachable/detachable member of the one-piece type water sport suit in accordance with one embodiment of the present disclosure.

[0028] FIG. 5 shows cross-sectional views of first and second attachable/detachable members of the one-piece type water sport suit in accordance with one embodiment of the present disclosure.

[0029] FIG. 6 shows cross-sectional views of a coupling relationship between first and second attachable/detachable members of the one-piece type water sport suit in accordance with one embodiment of the present disclosure when a neck collar is in a horizontally closed or open mode.

[0030] For simplicity and clarity of illustration, elements in the figures are not necessarily drawn to scale. The same reference numbers in different figures denote the same or similar elements, and as such perform similar functionality. Also, descriptions and details of well-known steps and elements are omitted for simplicity of the description. Furthermore, in the following detailed description of the present disclosure, numerous specific details are set forth in order to provide a thorough understanding of the present disclosure. However, it will be understood that the present disclosure may be practiced without these specific details. In other instances, well-known methods, procedures, components, and circuits have not been described in detail so as not to unnecessarily obscure aspects of the present disclosure.

DETAILED DESCRIPTIONS

[0031] Examples of various embodiments are illustrated and described further below. It will be understood that the description herein is not intended to limit the claims to the

specific embodiments described. On the contrary, it is intended to cover alternatives, modifications, and equivalents as may be included within the spirit and scope of the present disclosure as defined by the appended claims.

[0032] It will be understood that, although the terms “first”, “second”, “third”, and so on may be used herein to describe various elements, components, regions, layers and/or sections, these elements, components, regions, layers and/or sections should not be limited by these terms. These terms are used to distinguish one element, component, region, layer or section from another element, component, region, layer or section. Thus, a first element, component, region, layer or section described below could be termed a second element, component, region, layer or section, without departing from the spirit and scope of the present disclosure.

[0033] It will be understood that when an element or layer is referred to as being “connected to”, or “coupled to” another element or layer, it can be directly on, connected to, or coupled to the other element or layer, or one or more intervening elements or layers may be present. In addition, it will also be understood that when an element or layer is referred to as being “between” two elements or layers, it can be the only element or layer between the two elements or layers, or one or more intervening elements or layers may also be present.

[0034] Spatially relative terms, such as “beneath,” “below,” “lower,” “under,” “above,” “upper,” and the like, may be used herein for ease of explanation to describe one element or feature’s relationship to another elements or features as illustrated in the figures. It will be understood that the spatially relative terms are intended to encompass different orientations of the device in use or in operation, in addition to the orientation depicted in the figures. For example, if the device in the figures is turned over, elements described as “below” or “beneath” or “under” other elements or features would then be oriented “above” the other elements or features. Thus, the example terms “below” and “under” can encompass both an orientation of above and below. The device may be otherwise oriented for example, rotated 90 degrees or at other orientations, and the spatially relative descriptors used herein should be interpreted accordingly.

[0035] The terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting of the present disclosure. As used herein, the singular forms “a” and “an” are intended to include the plural forms as well, unless the context clearly indicates otherwise. It will be further understood that the terms “comprises”, “comprising”, “includes”, and “including” when used in this specification, specify the presence of the stated features, integers, operations, elements, and/or components, but do not preclude the presence or addition of one or more other features, integers, operations, elements, components, and/or portions thereof. As used herein, the term “and/or” includes any and all combinations of one or more of the associated listed items. Expression such as “at least one of” when preceding a list of elements may modify the entire list of elements and may not modify the individual elements of the list.

[0036] Unless otherwise defined, all terms including technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this inventive concept belongs. It will be further

understood that terms, such as those defined in commonly used dictionaries, should be interpreted as having a meaning that is consistent with their meaning in the context of the relevant art and will not be interpreted in an idealized or overly formal sense unless expressly so defined herein.

[0037] In the following description, numerous specific details are set forth in order to provide a thorough understanding of the present disclosure. The present disclosure may be practiced without some or all of these specific details. In other instances, well-known process structures and/or processes have not been described in detail in order not to unnecessarily obscure the present disclosure.

[0038] As used herein, the term “substantially,” “about,” and similar terms are used as terms of approximation and not as terms of degree, and are intended to account for the inherent deviations in measured or calculated values that would be recognized by those of ordinary skill in the art. Further, the use of “may” when describing embodiments of the present disclosure refers to “one or more embodiments of the present disclosure.”

[0039] As shown in FIG. 1, one-piece type water sport suit 1 may be used for sports activities such as scuba diving or swimming, triathlon, etc., and may have a role to prevent the body from being damaged from external objects by implementing the warming effect that prevents the body temperature from being lowered during the underwater sports activities.

[0040] The suit may be made of neoprene with good elasticity and polyurethane coating on the outer surface of neoprene. By coating the polyurethane coating on the outer surface of neoprene, it is possible to reduce the surface friction with water and, thus, to facilitate underwater activities.

[0041] The one-piece type water sport suit 1 may be monolithic and may include a lower portion 2 and an upper portion 3. The upper portion may have a neck collar 4 wrapping the neck of the user.

[0042] The neck collar 4 may protect the user's neck by surrounding the user's neck while performing warming around the neck.

[0043] The one-piece type water sport suit 1 may have a zipper 5 on the upper portion thereof. Thus, after the user puts on the one-piece type water sport suit 1, the user may move upwards the zipper 5 to the neck collar 4 to close the upper portion 3.

[0044] Then, the user may couple two attachable/detachable members 10 and 20 to each other. The two attachable/detachable members 10 and 20 may be formed at two opposing ends of the neck collar 4 respectively.

[0045] As shown in FIG. 2, a first attachable/detachable member 10 may be formed on the neck collar 4 at a right end 4a thereof, while a second attachable/detachable member 20 may be formed on the neck collar 4 at a left end 4b thereof.

[0046] In a prior art, the first attachable/detachable member 10 may be replaced with a female Velcro, while the second attachable/detachable member 20 may be replaced with a male Velcro.

[0047] In the case of a person with long hair, hair was caught on the male Velcro. When the Velcro was used for a long time, the adhesion thereof was weakened due to wear of the Velcro.

[0048] In order to solve those problems, in accordance with the present disclosure, each of the first attachable/detachable member 10 and second attachable/detachable

member 20 may contain therein magnets. In this connection, the magnets may be embedded therein such that they are hidden.

[0049] When the user wears the one-piece type water sport suit, the first attachable/detachable member 10 may be held in place while the second attachable/detachable member 20 may be coupled to or separated from the first attachable/detachable member 10 in a flap manner.

[0050] As shown in FIG. 2A, the user may separate the second attachable/detachable member 20 from the first attachable/detachable member 10. As shown in FIG. 2B, the user may couple the second attachable/detachable member 20 to the first attachable/detachable member 10.

[0051] In this connection, in order to strength coupling between the first and second attachable/detachable members 10 and 20, each of the first and second attachable/detachable members 10 and 20 may have a plurality of magnets 125 and 225 respectively. The arrangement of the magnets 125 in the first attachable/detachable member 10 may correspond to the arrangement of the magnets 225 in the second attachable/detachable member 20.

[0052] Each of the magnets 125 and 225 may be embodied as neodymium magnets. The present disclosure may not be limited thereto.

[0053] FIG. 3 is an exploded perspective view of the first attachable/detachable member 10.

[0054] The first attachable/detachable member 10 may include a first layer 110, a second layer 120, and a third layer 130.

[0055] The first layer 110 may contact the skin of the user. The second layer 120 may contain therein the magnets 125. The third layer 130 may serve as a top of the first attachable/detachable member 10, which contacts the second attachable/detachable member 20.

[0056] Since the first layer 110 may contact the skin of the user, the first layer 110 may have soft textile layers 111 and 112, for example, nylon layers.

[0057] However, the present disclosure may not be limited thereto. The first layer 110 may be made of any material as long as the material may have a anti-shock function.

[0058] The second layer 120 may include an elastic layer 121 made of neoprene. The elastic layer 121 may have holes 122 defined therein. The magnets holes 122 may be spacedly arranged. The magnets 125 may be received in the holes 122 respectively.

[0059] The third layer 130 may cover the second layer 120. The third layer 130 may have a main layer 131 and a polyurethane coating 132 on the main layer 131. Thus, the polyurethane coating 132 may minimize friction with water.

[0060] The first attachable/detachable member 10 may have a first boundary 10a with the neck collar 4, and a second boundary 10b with the upper portion 3 of the one-piece type water sport suit 1. The first boundary 10a and second boundary 10b may be connected to be continuous.

[0061] Thus, the first attachable/detachable member 10 may be coupled to the neck collar 4 and the upper portion 3 of the one-piece type water sport suit 1 via, for example, a sewing.

[0062] FIG. 5A is a cross sectional view of the first attachable/detachable member 10.

[0063] The first attachable/detachable member 10 may have the first layer 110 which include a first elastic layer 113 made of neoprene, a first textile layer 111 coupled to the first elastic layer 113 and contacting the skin of the user and thus

having anti-shock function, and a second textile layer **112** coupled to the first elastic layer **113** and having anti-shock function and contacting the second layer **120**.

[0064] The second textile layer **111** may be optional.

[0065] The first elastic layer **113** may be coupled to each of the first and second textile layers **111** and **112** by applying adhesive therebetween and heat-pressing them using a roller.

[0066] Specifically, the adhesive may be applied on the roller and, then, the roller may rotate to allow the adhesive to be applied on the first and second textile layers **111** and **112** and the roller may be pressed toward the layers. The roller may be heated to 130 to 150° C.

[0067] Each of the first and second textile layers **111** and **112** may be made of nylon. Each of the first and second textile layers **111** and **112** may have a thickness of about 0.3 to 0.5 cm to allow the anti-shock function.

[0068] The first attachable/detachable member **10** may have the second layer **120** which includes a second elastic layer **121**, holes defined in the second elastic layer **121** and the magnets **125** received in the holes.

[0069] The second elastic layer **121** may be made of neoprene. Each of the holes may have a shape corresponding to a shape of each of the magnets. The holes may be spacedly arranged.

[0070] The first attachable/detachable member **10** may have the third layer **130** which includes a third elastic layer **131** contacting the second layer **120**, and a polyurethane coating layer **132** formed on the third elastic layer **131**.

[0071] The third elastic layer **131** may be made of neoprene. The polyurethane coating layer **132** may act to lessen friction with water and to provide warmth and comfort to the wearer due to its unique flexibility.

[0072] The polyurethane coating layer **132** may be referred to as PU coating. The polyurethane coating layer **132** may be formed by liquidizing polyurethane resin and mixing the same with a curing agent and applying the mixture on the third elastic layer **131** and curing the mixture by blowing hot air.

[0073] Between the first layer **110** and second layer **120**, and between the second layer **120** and third layer **130**, adhesives **A** may be disposed.

[0074] In this connection, as for the adhesive **A**, chloroprene is the main material thereof. Chloroprene at a solid state may be dissolved into the liquid phase and may be mixed with additives such as solvent, toluene, etc.

[0075] FIG. 4 is an exploded perspective view of the second attachable/detachable member **20**.

[0076] The second attachable/detachable member **20** may include a first layer **210**, a second layer **220**, and a third layer **230**.

[0077] The first layer **210** may contact the third layer **130** of the first attachable/detachable member **10**. The second layer **220** may contain therein the magnets **225**. The third layer **230** may serve as a top of the second attachable/detachable member **20**.

[0078] When the second attachable/detachable member **20** contacts the first attachable/detachable member **10**, the third layer **230** of the second attachable/detachable member **20** may be exposed outwardly.

[0079] As shown in FIG. 2, the second attachable/detachable member **20** may have a first boundary **20a** with the neck collar **4** on the other end **4b** thereof, and a second boundary **20b** with the upper portion **3** of the one-piece type water

sport suit **1**. The first boundary **20a** and second boundary **20b** may be connected to be continuous.

[0080] Thus, the second attachable/detachable member **20** may be coupled to the neck collar **4** and the upper portion **3** of the one-piece type water sport suit **1** via, for example, a sewing.

[0081] FIG. 5B is a cross sectional view of the second attachable/detachable member **20**.

[0082] The second attachable/detachable member **20** may have the first layer **210** which include a first elastic layer **211** made of neoprene, and a polyurethane coating layer **212** on the first elastic layer **211**. The polyurethane coating layer **212** may face the first attachable/detachable member **10**.

[0083] The polyurethane coating layer **212** may be referred to as PU coating. The polyurethane coating layer **212** may be formed by liquidizing polyurethane resin and mixing the same with a curing agent and applying the mixture on the first elastic layer **211** and curing the mixture by blowing hot air.

[0084] The second attachable/detachable member **20** may have the second layer **220** which includes a second elastic layer **221**, holes defined in the second elastic layer **221** and the magnets **225** received in the holes.

[0085] The second elastic layer **221** may be made of neoprene.

[0086] Each of the holes may have a shape corresponding to a shape of each of the magnets. The holes may be spacedly arranged.

[0087] The second elastic layer **221** may be similar to the second elastic layer **121** of the first attachable/detachable member **20**.

[0088] The second attachable/detachable member **20** may have the third layer **230** which includes a third elastic layer **231** contacting the second layer **220**, and a polyurethane coating layer **232** formed on the third elastic layer **231**.

[0089] The third elastic layer **231** may be made of neoprene. The polyurethane coating layer **232** may act to lessen friction with water and to provide warmth and comfort to the wearer due to its unique flexibility.

[0090] In this way, the first attachable/detachable member **10** and second attachable/detachable member **20** may have magnets **125** and **225** respectively. The magnets **125** and **225** allow mutual coupling between the first and second attachable/detachable members **10** and **20**.

[0091] The magnets **125**, **225** may not be damaged for a long use. Thus, the first and second attachable/detachable members **10** and **20** may have good coupling for a long use.

[0092] Although, in this embodiment, the first attachable/detachable member **10** and second attachable/detachable member **20** have the magnets **125** and **225**, the present disclosure is not limited thereto. One of the first attachable/detachable member **10** and second attachable/detachable member **20** contains magnets, the other of the first attachable/detachable member **10** and second attachable/detachable member **20** contains metal materials, for example, iron.

[0093] For example, the first attachable/detachable member **10** may contain the magnets, the second attachable/detachable member **20** contains metal materials, for example, iron. Alternatively, the second attachable/detachable member **20** may contain the magnets, the first attachable/detachable member **10** contains metal materials, for example, iron.

[0094] Each of the first and second attachable/detachable members **10** and **20** may have a soft textile or polyurethane

coating layer as an outer face thereof. Thus, there is an advantage that the hair of the user is not tangled or the skin is damaged.

[0095] As shown in FIG. 2A and FIG. 6A, in order to take off the one-piece type water sport suit, the second attachable/detachable member 20 may be separated from the first attachable/detachable member 10 in a flap manner.

[0096] As shown in FIG. 2B and FIG. 6B, in order to put on the one-piece type water sport suit 1 and close the neck collar 4, the second attachable/detachable member 20 may be moved toward the first attachable/detachable member 10, and, then, the first and second attachable/detachable members 10 and 20 may be automatically coupled to each other via attraction force between the magnets 125, 225 embedded in the first and second attachable/detachable member 10 and 20 respectively.

[0097] Although the magnets 125, 225 are received in the first and second attachable/detachable members 10 and 20 respectively, the layers of each of the first and second attachable/detachable members 10 and 20 may not be thick. Further, the magnets 125, 225 may have the strong magnetic force, and, thus, the coupling force between the first and second attachable/detachable member 10 and 20 may be not weakened.

[0098] The above description is not to be taken in a limiting sense, but is made merely for the purpose of describing the general principles of exemplary embodiments, and many additional embodiments of this disclosure are possible. It is understood that no limitation of the scope of the disclosure is thereby intended. The scope of the disclosure should be determined with reference to the Claims. Reference throughout this specification to “one embodiment,” “an embodiment,” or similar language means that a particular feature, structure, or characteristic that is described in connection with the embodiment is included in at least one embodiment of the present disclosure. Thus, appearances of the phrases “in one embodiment,” “in an embodiment,” and similar language throughout this specification may, but do not necessarily, all refer to the same embodiment.

REFERENCE NUMERALS

- [0099]** 10: first attachable/detachable member
[0100] 20: second attachable/detachable member
[0101] 110, 210: first layer
[0102] 120, 220: second layer
[0103] 130, 230: third layer
[0104] 122, 222: magnets holes
[0105] 125, 225: magnets

What is claimed is:

1. An one-piece type water sport suit comprising:
 an leg portion, a torso portion, an arm portion;
 a neck collar coupled to the torso portion, wherein the collar is cylindrical when the collar is in a horizontally closed state; and
 first and second attachable/detachable members coupled to the neck collar to allow opening or closing of the collar,
 wherein the first attachable/detachable member is coupled to the neck collar at a first end thereof, and the second attachable/detachable member is coupled to the neck collar at a second end thereof, wherein the first and

second ends are free ends when the collar is in a horizontally open state, wherein the first and second ends face each other,

wherein the first attachable/detachable member is magnetically coupled to the second attachable/detachable member, wherein the second attachable/detachable member has a first magnet array and the first attachable/detachable member has a second magnet array or a metal structure,

wherein the second attachable/detachable member includes:

- a first layer facing the first attachable/detachable member when the collar is in a horizontally closed state;
- a second layer coupled to the first layer and containing therein the first magnet array;
- a third layer facing outwardly and coupled to the second layer, wherein the third layer acts to reduce friction with water; and
- a first adhesive layer between the first layer and second layer, and a second adhesive layer between the second layer and third layer.

2. The suit of claim 1, wherein the second attachable/detachable member is attachable to or detachable from the first attachable/detachable member in a flap manner, wherein the second attachable/detachable member is implemented as a flap type cover.

3. The suit of claim 1, wherein the first attachable/detachable member includes:

- a first layer contacting a skin of an wearer and having an anti-shock function;
- a second layer coupled to the first layer and containing therein the second magnet array;
- a third layer facing outwardly and coupled to the second layer, wherein the third layer acts to reduce friction with water; and
- a third adhesive layer between the first layer and second layer of the first attachable/detachable member and a fourth adhesive layer between the second layer and third layer thereof.

4. The suit of claim 3, wherein the first layer of the first attachable/detachable member includes:

- an elastic sub-layer; and
- a textile sub-layer coupled to the elastic sub-layer, wherein the textile sub-layer includes:
 a first textile sub-layer contacting, on one face thereof, an outer face of the elastic sub-layer, and contacting, on the other face thereof, the skin of the wearer and having an anti-shock function; and/or
 a second textile sub-layer contacting, on one face thereof, an inner face of the elastic sub-layer, and contacting, on the other face thereof, the second layer of the first attachable/detachable member and having an anti-shock function.

5. The suit of claim 3, wherein the second layer of the first attachable/detachable member includes:

- an elastic sub-layer; and
- a hole array defined in the elastic sub-layer, wherein the hole array receives the second magnet array or metal array correspondingly and holes in the hole array are spaced from each other.

6. The suit of claim 3, wherein the third layer of the first attachable/detachable member includes:

- an elastic sub-layer facing, on one face thereof, the second layer of the first attachable/detachable member; and

a polyurethane coating layer contacting the elastic sub-layer on the other face thereof.

7. The suit of claim 1, wherein the first layer of the second attachable/detachable member includes:

an elastic sub-layer; and

a polyurethane coating layer contacting the elastic sub-layer on an outer face thereof.

8. The suit of claim 1, wherein the second layer of the second attachable/detachable member includes:

an elastic sub-layer; and

a hole array defined in the elastic sub-layer, wherein the hole array receives the first magnet array correspondingly and holes in the hole array are spaced from each other.

9. The suit of claim 1, wherein the third layer of the second attachable/detachable member includes:

an elastic sub-layer facing, on an inner face thereof, the second layer of the second attachable/detachable member; and

a polyurethane coating layer contacting the elastic sub-layer on an outer face thereof.

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