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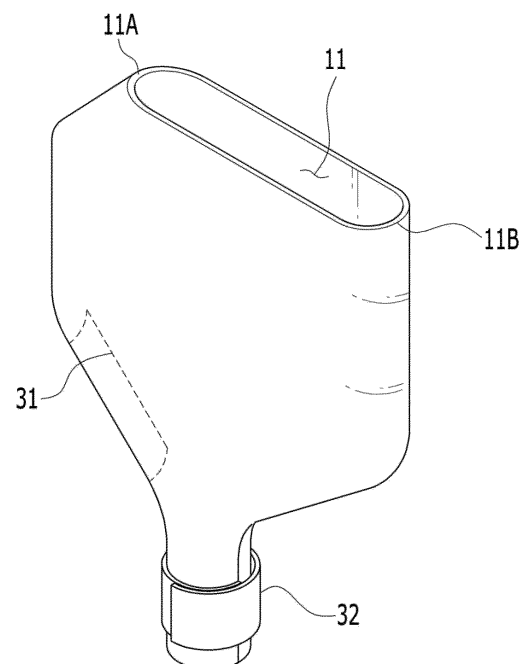
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(54) **COLD PROTECTION COVER FOR WALKING STICK**

(57) The present invention relates to a cold protection cover for a walking stick and, more particularly, to a cold protection cover for a walking stick, which is mounted on a walking stick to surround the handle of the walking stick and thereby allow an easy grip on the walking stick even in the bitter cold. The cold protection cover for a walking stick according to the present invention comprises: a body having an inner space in which the handle of a walking stick is accommodated; a top open portion provided at the top of the body; an grip insertion slit provided on one side of the body and forming an insertion port into which the walking stick is inserted; a bottom open portion which is provided at the bottom of the body and through which the body of the walking stick passes; a first opening/closing means for opening and closing the grip insertion slit; and a second opening/closing means for opening and closing the bottom open portion.

FIG. 1



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Description

[Technical Field]

[0001] The present disclosure relates to a cold protection cover for a walking stick, and more particularly, to a cold protection cover for the walking stick that is mounted on the walking stick to enclose the handle of the walking stick such that the walking stick may be easily gripped even in severely cold weather.

[Background Art]

[0002] A walking stick is a stick that assists users in walking, and is also called a cane. It is used by the elderly, the physically disabled, hikers, and travelers, and sometimes used by high-ranking people as a symbol of authority or for self-defence.

[0003] In general, a walking stick includes a handle corresponding to a part gripped by the user and a straight rod part connected to the handle. In extremely cold weather in, for example, winter, the handle becomes quite cold. In particular, the elderly who must use a walking stick indispensably are physically very frail and more vulnerable to such an environment. Therefore, there is a need to address the aforementioned issue.

[0004] Korea Utility No. 20-0195945 discloses a conventional technology for a cold protection cover for a motorcycle, which is not related to a walking stick but is capable of protecting drivers driving a motorcycle in bad weather.

[Disclosure]

[Technical Problem]

[0005] Therefore, the present disclosure has been made in view of the above problems, and it is one object of the present disclosure to provide a cold protection cover for a walking stick, which allows a user to stably grip a handle of the walking stick even in cold weather in, for example, winter.

[0006] It is another object of the present disclosure to provide a cold protection cover for a walking stick which is capable of firmly maintaining coupling between the walking stick and the cold protection cover due to its unique structure and shape.

[Technical Solution]

[0007] In accordance with one aspect of the present disclosure, provided herein is a cold protection cover mounted on a walking stick to enclose a handle of the walking stick. The cold protection may include a body having an inner space to accommodate the handle of the walking stick, an upper opening provided in an upper part of the body, a grip insertion slit provided on one side of the body and forming an insertion hole, the walking stick

being inserted into the insertion hole, a lower opening provided in a lower part of the body and allowing the body of the walking stick to pass therethrough, a first opening/closing means configured to open and close the grip insertion slit, and a second opening/closing means configured to open and close the lower opening.

[0008] In addition, the grip insertion slit may extend inwardly from one side of the body and be provided on one lower part constituting one side lower part. The lower part may have an inclined part inclined downward and inward.

[0009] The upper opening may have one upper end at one end of the upper opening and an opposite upper end at an opposite end of the upper opening. The one upper end and the opposite upper end may be formed in a round shape.

[0010] In addition, the first opening/closing means and the second opening/closing means may be Velcro tapes. The first opening/closing means may be coupled to an inside of the body.

[Advantageous Effects]

[0011] According to the present disclosure having the above configuration and characteristics, the handle of the walking stick may be stably gripped even in cold weather in, for example, winter.

[0012] In addition, due to its unique structure and shape of the cold protection cover, coupling between the walking stick and the cold protection cover may be firmly maintained.

[Description of Drawings]

[0013]

FIG. 1 is a perspective view of a cold protection cover.

FIG. 2 is a plan view showing a first opening/closing means bonded.

FIG. 3 is a plan view showing the first opening/closing means in an open position.

FIG. 4 is a perspective view showing the opening/closing means in the open position.

FIG. 5 shows the use status of the cold protection cover.

FIG. 6 is a perspective view showing a fur cover attached to an upper opening.

[Best Mode]

[0014] Various modifications and changes can be made to the present disclosure, and embodiments (or aspects) are disclosed in detail in the following description. It should be understood, however, that the invention is not intended to be limited to the particular forms disclosed, but includes all modifications, equivalents, and alternatives falling within the spirit and scope of the in-

vention.

[0015] It is to be understood that the terminology used herein is merely intended to describe particular embodiments (aspects) and is not intended to limit the present disclosure. The singular forms "a," "an," and "the" encompass plural forms unless context clearly dictates otherwise. In the present disclosure, the term "comprising", "including", or the like is intended to specify the presence of stated features, numbers, steps, operations, elements, parts, or combinations thereof, but should not be construed as precluding the presence or addition of one or more other features, numbers, steps, operations, elements, parts, or combinations thereof.

[0016] Unless defined otherwise, all terms used herein, including technical or scientific terms, have the same meaning as commonly understood by one of ordinary skill in the art to which this invention belongs. 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 this specification and the relevant art and will not be interpreted in an idealized or overly formal sense unless expressly so defined herein.

[0017] It is to be understood that ordinals such as first, second, third, etc. described in the present disclosure are merely referred to in order to distinguish between different components, and are not limited to the order in which they are manufactured. The names may not be consistent in the description and claims of the present disclosure.

[0018] The present disclosure relates to a cold protection cover for a walking stick 2, and more particularly, to a cold protection cover for the walking stick 2 that is mounted on the walking stick 2 to enclose the handle 21 of the walking stick 2 such that the walking stick 2 may be easily gripped even in severely cold weather.

[0019] In addition, unless otherwise specified in the present disclosure, one side and one end refer to the left side and left end, and an opposite side and an opposite end refer to the right side and right end.

[0020] First, as shown in FIG. 5, the walking stick 2 includes a handle 21 provided to an upper portion thereof, and a body 22 vertically connected to a lower portion of the handle 21 and extending in a straight line. The walking stick 2 may have a general shape of the walking stick 2. Functionally, the walking stick 2 may be a walking stick that is conventionally widely used.

[0021] Next, the body 1 includes an upper opening 11 having an open top and provided in an upper portion of the body 1 to cover the handle 21 and a portion of the body 22. The structure of the body 1 will be described in detail later. As described above, the body 1 is arranged close to the handle 21 of the walking stick 2 to protect the walking stick from the cold weather such that the user may easily grip the walking stick 2 by putting his hand into the upper opening 11.

[0022] Next, as shown in FIG. 1, in the upper opening 11, an one upper end 11A is formed at one end of the upper opening 11, and an opposite upper end 11B is

formed in an opposite end of the opening. The one upper end 11A and the opposite upper end 11B are formed in a round shape to facilitate allow the user to easily put or withdraw his hand. In addition, as shown in FIG. 6, by covering the open part of the upper opening 11 with a fur cover C composed of fur, airtightness may be enhanced.

[0023] Next, as shown in FIG. 2, the body 1 includes one side part 12A extending downward from the one upper end 11A to constitute one side surface, and an opposite side part 12B extending downward from the opposite upper end 11B to constitute an opposite side surface. Accordingly, the one side part 12A and the opposite side part 12B constitute the side part 12 of the body 1.

[0024] In addition, an upper inclined part 15A may be provided between the one upper end 11A and the one side part 12A, which may not only reduce the space inside the body 1 to a compact size to maximize thermal efficiency, but also allow the walking stick 2 to enter smoothly through an insertion hole 161 to be coupled to the body 1.

[0025] Next, as shown in FIG. 2, the body includes one lower part 13A extending inward from the one side part 12A to form one lower part of the body 1, and an opposite lower part 13B extending inward from the opposite side part 12B to form an opposite lower part of the body 1. Accordingly, the one lower part 13A and the opposite lower part 13B constitute the lower part 13 of the body 1.

[0026] In addition, a grip insertion slit 16 that is provided on one side of the body 1 and forms an insertion hole into which the walking stick 2 is inserted will be described in detail. The grip insertion slit 16 extends inward from the one side part 12A of the body 1 to one lower part 13A, which are forms one side lower part. In addition, as described in FIGS. 2 and 3, the one lower part 13A has an inclined part with a downward slope toward the inside, where the downward slope toward the inside may allow the walking stick 2 to be easily coupled to or inserted into the body 1 at the initial stage

[0027] As the grip insertion slit 16 is formed to be inclined, the handle 21 of the walking stick 2 may be easily inserted into the body 1. More specifically, if the inclination is not formed at all, the walking stick 2, which is relatively long, should be moved upward with the height thereof maintained, and then the body 22 should be inserted into the lower opening 14, which will be described later, to couple the walking stick 2 with the body 1. Accordingly, the coupling operation is quite cumbersome. In particular, considering that the walking stick 2 is an item used by people with reduced mobility such as the elderly, the above effect may be further emphasized.

[0028] In this regard, according to the present disclosure, the lower part 13A has an inclined part having a predetermined slope. Accordingly, when the long walking stick 2 is inserted into the body 1, it is moved while obtaining a height gain in the inclination direction, rather than maintaining the height of the walking stick 2.

[0029] Here, the height gain refers to a reduced amount of height by which the walking stick 2 is less lifted upward as the walking stick 2 is inclined in an inclination

direction.

[0030] More specifically, in coupling the body 1 and the walking stick 2, when the lower part of the walking stick 2 passes through the grip insertion slit 16 after the handle 21 of the walking stick 2 is inserted into the aforementioned grip insertion slit 16, the lower part of the walking stick 2 is moved into the lower opening 14 such that the body and the walking stick may be coupled.

[0031] Here, the lower opening 14 refers to an element which is provided to the lower part of the body 1 and through which the body 22 of the walking stick 2 passes.

[0032] Next, the grip insertion slit 16 may include a first opening/closing means 31 to open and close the open part of the grip insertion slit 16. In one embodiment, the first opening/closing means 31 may be a Velcro tape.

[0033] In addition, the body 1 includes a lower opening 14 protruding downward from the lower part and having an open center. The lower opening 14 may include a second opening/closing means 32 to opening closed the open part of the lower opening 14. In one embodiment, the second opening/closing means 32 may be a Velcro tape.

[0034] As shown in FIG. 4, by coupling the first opening/closing means front surface 311 to the inside of the body 1, an aesthetically neat appearance may be obtained.

[0035] In addition, as shown in FIG. 4, the first opening/closing means front surface 311, which corresponds to the front surface of the first opening/closing means 31, is formed in a trapezoidal shape, such that a front lower part 311B of the first opening/closing means 311 is shorter than a front upper part 311A of the first opening/closing means 311A. It includes one front side part 311C and an opposite front side part 311D connecting each end of the front upper part 311A and each end of the front lower part 311B.

[0036] In addition, the upper and lower parts of the first opening/closing means 311 are defined as follows. Based on FIG. 2, a side of the first opening/closing means 31 close to the upper opening 11 is defined as the upper part and the other side thereof which is far from the upper opening is defined as the lower part.

[0037] As shown in FIG. 4, as the first opening/closing means 31 extends from the front upper part 311A to the front lower part 311B, the width thereof decreases. Accordingly, the adhesion effect of the Velcro tape according to the one embodiment may be enhanced for the following reason.

[0038] The width of the part of the first opening/closing means closer to the outermost side of the insertion hole 16 is formed wider, which makes it more difficult to detach the first opening/closing means from the outermost side. In particular, this effect may be further maximized for beginners of mountaineering or hikers who mainly enjoy rough hiking.

[0039] As shown in FIG. 5, the length h of the insertion hole 161 may be formed such that the insertion hole is not excessively widened by more than 50 degrees when

the grip insertion slit 16 is opened to the maximum degree.

[0040] In addition, in one embodiment, the second opening/closing means may be a Velcro tape including a D-type ring and a webbing string, which may completely seal the lower opening 14, effectively preventing the body 1 and the walking stick 2 from being separated.

[0041] The cold protection cover for a walking stick according to the present disclosure further includes a functional additive. The addition of the functional additive may suppress the generation of organic halogen compounds and nitrogen oxides present on the outer surface of the cold protection cover, and may also obtain antibacterial and deodorizing effects. In particular, it may ultimately protecting elderly people with weak immune systems, considering that the age group using the walking stick is the elderly. In addition, the functional additive may be included by immersing the cold protection cover for the walking stick according to the present disclosure in the functional additive.

[0042] The functional additive includes 100 parts by weight of a binder, 12 parts by weight of titanium tetraisopropoxide, 0.3 parts by weight of platinum ion, 12 parts by weight of polyphenylmethylsiloxane, 40 parts by weight of polydimethoxysilane, 5 parts by weight of polychlorinated phosphonitrile, 3.8 parts by weight of isopto, 2 parts by weight of carbonate apatite, 0.1 parts by weight of calcium phosphate, and 0.1 parts by weight of hydroxyapatite.

[0043] Silicon alkoxide may be used as the binder. Hereinafter, the content of each composition of the functional additive is based on 100 parts by weight of the binder.

[0044] Next, the titanium tetraisopropoxide is a precursor of titanium dioxide, which is stirred with platinum ions, which will be described later, to produce platinum-titanium dioxide with a reduced energy gap between the conduction band and the balance band of titanium dioxide.

[0045] Therefore, the platinum-titanium dioxide may be active not only in the ultraviolet region but also in the visible light region. In the active state, electrons and holes move to the surface and combine with oxygen and hydroxyl groups to form radicals, thereby removing nitrogen oxides and organic halogen compounds (and obtaining the deodorization and antibacterial effects described above).

[0046] In addition, titanium tetraisopropoxide with a formula of $\text{CH}_3\text{CHO}_2\text{T1C}_5\text{H}_7\text{O}_2$ may be used. The titanium tetraisopropoxide may be contained as much as 12 parts by weight. When the titanium tetraisopropoxide is used in an amount of less than 12 parts by weight, nitrogen oxides and organic halogen compounds cannot be effectively removed. When it is used in an amount exceeding 12 parts by weight, it is difficult to form a narrow energy band gap.

[0047] Next, platinum ions are stirred with the titanium tetraisopropoxide to produce platinum-titanium dioxide, and may be obtained from chlorobaekgeumsan or the

like. The stirring process may conform to a typical method. The platinum ions are contained as much as 0.3 parts by weight. Platinum ions cannot effectively reduce the energy band gap between platinum and titanium dioxide when used in an amount less than 0.3 parts by weight, and are not economical when used in an amount exceeding 0.3 parts by weight.

[0048] Next, polyphenylmethylsiloxane is a material that is stirred with the above platinum-titanium dioxide to suppress the active state of platinum-titanium dioxide. Polyphenylmethylsiloxane prevents the platinum-titanium dioxide from rapidly oxidizing the other constituents upon immersion, and it is preferable to add the same amount as the platinum-titanium dioxide.

[0049] Next, polydimethoxysilane and polychlorinated phosphonitrile are used as substances that decompose the polyphenylmethylsiloxane. They are added after stirring platinum-titanium dioxide and polyphenylmethylsiloxane. While the polyphenylmethylsiloxane is slowly decomposed, the platinum-titanium dioxide, whose active state has been suppressed, can be oxidized after the immersion is completed. Preferably, 40 parts by weight of polydimethoxysilane and 5 parts by weight of polychlorinated phosphonitrile are used. If the amount of polydimethoxysilane used is less than 40 parts by weight, and the amount of polychlorinated phosphonitrile used is less than 5 parts by weight, the decomposition rate of the polyphenylmethylsiloxane may be too slow, leading to a decrease in oxidizing power of platinum-titanium dioxide. If the amount of polydimethoxysilane used exceeds 40 parts by weight, and the amount of polychlorinated phosphonitrile used exceeds 5 parts by weight, the decomposition rate of the polyphenylmethylsiloxane may be too fast, and physical properties may be adversely affected due to the strong oxidizing power of platinum-titanium dioxide.

[0050] Next, isopto is added to increase emulsion stability, and it is preferable to use 3.8 parts by weight of isopto. When the amount used is less than 3.8 parts by weight, the emulsification property may not be improved. When the amount used exceeds 3.8 parts by weight, economic feasibility and physical properties may be deteriorated.

[0051] Next, carbonate apatite, calcium phosphate, and hydroxyapatite are substances that are softened or dissolved in an acidic atmosphere. Before the functional additive comes into contact with acid dyes applied to the outer surface of the cold protection cover, the carbonate apatite, calcium phosphate, and hydroxyapatite may protect the worker by covering the isopto, which may have a harmful effect on humans (strong irritation when it enters the eyes, etc.). After the functional additive comes into contact with acid dyes, the emulsion stability effect of the isopto may be exhibited as the carbonate apatite, calcium phosphate, and hydroxyapatite are softened or decomposed. In addition, 2 parts by weight of carbonate apatite, 0.1 parts by weight of calcium phosphate, and 0.1 parts by weight of hydroxyapatite may be contained.

When they are used below the above range, it is difficult to suppress the harmful properties of the isopto. When they exceed the above range, it is difficult to obtain the emulsifying effect of the isopto. Of course, an acid dye should be used for the cold protection cover.

[0052] Various modifications and changes can be made to the present disclosure described above with reference to the accompanying drawings by regularly trained technician. Such modifications and changes should be interpreted as being within in the scope of the present disclosure.

Claims

1. A cold protection cover mounted on a walking stick to enclose a handle of the walking stick, the cold protection comprising:
 - a body having an inner space to accommodate the handle of the walking stick;
 - an upper opening provided in an upper part of the body;
 - an grip insertion slit provided on one side of the body and forming an insertion hole, the walking stick being inserted into the insertion hole;
 - a lower opening provided in a lower part of the body and allowing the body of the walking stick to pass therethrough;
 - a first opening/closing means configured to open and close the grip insertion slit; and
 - a second opening/closing means configured to open and close the lower opening.
2. The cold protection cover of claim 1, wherein the grip insertion slit extends inwardly from one side of the body and is provided on one lower part constituting one side lower part, wherein the lower part has an inclined part inclined downward and inward.
3. The cold protection cover of claim 2, wherein the upper opening has one upper end at one end of the upper opening and an opposite upper end at an opposite end of the upper opening, wherein the one upper end and the opposite upper end are formed in a round shape.
4. The cold protection cover of claim 3, wherein the first opening/closing means and the second opening/closing means are Velcro tapes, wherein the first opening/closing means is coupled to an inside of the body.

FIG. 1

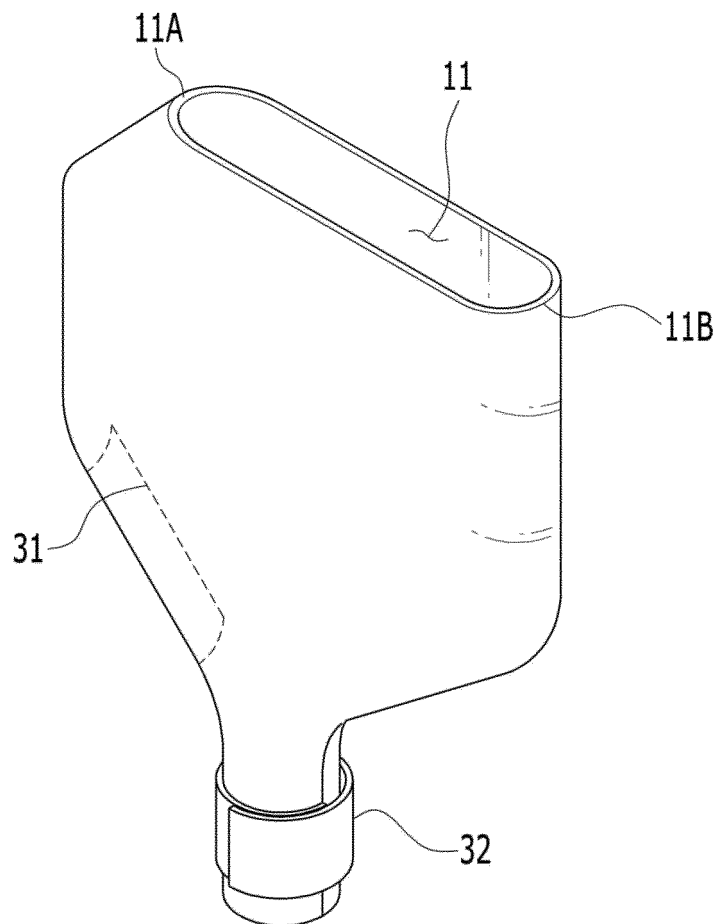


FIG. 2

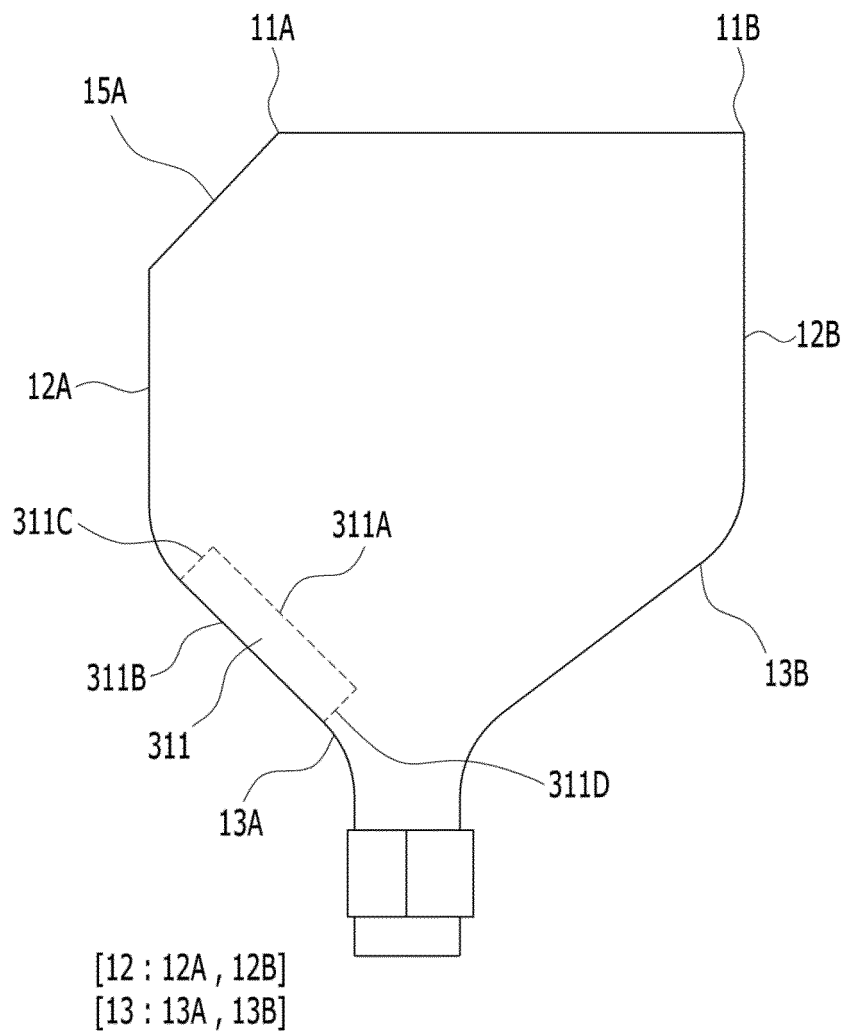


FIG. 3

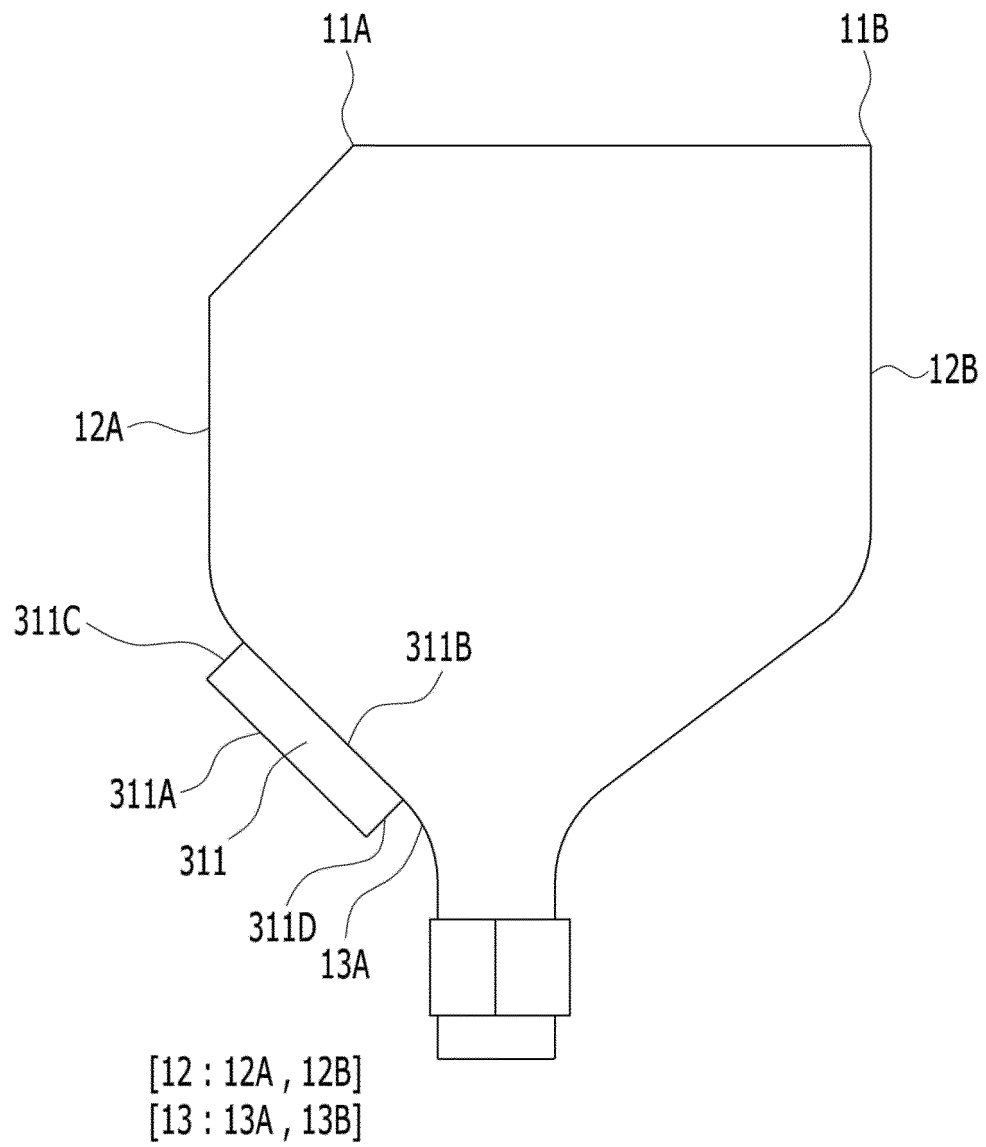


FIG. 4

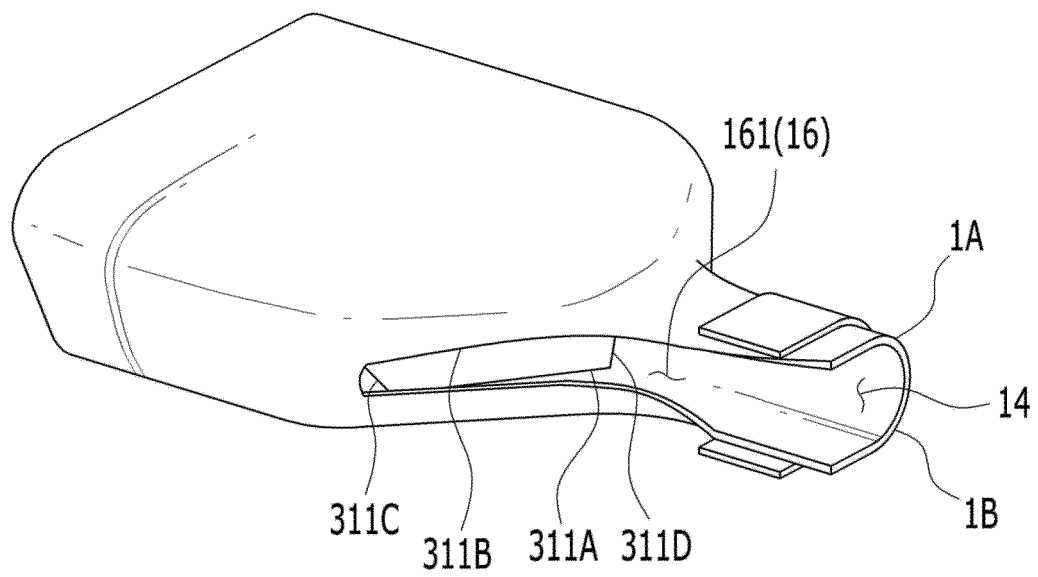


FIG. 5

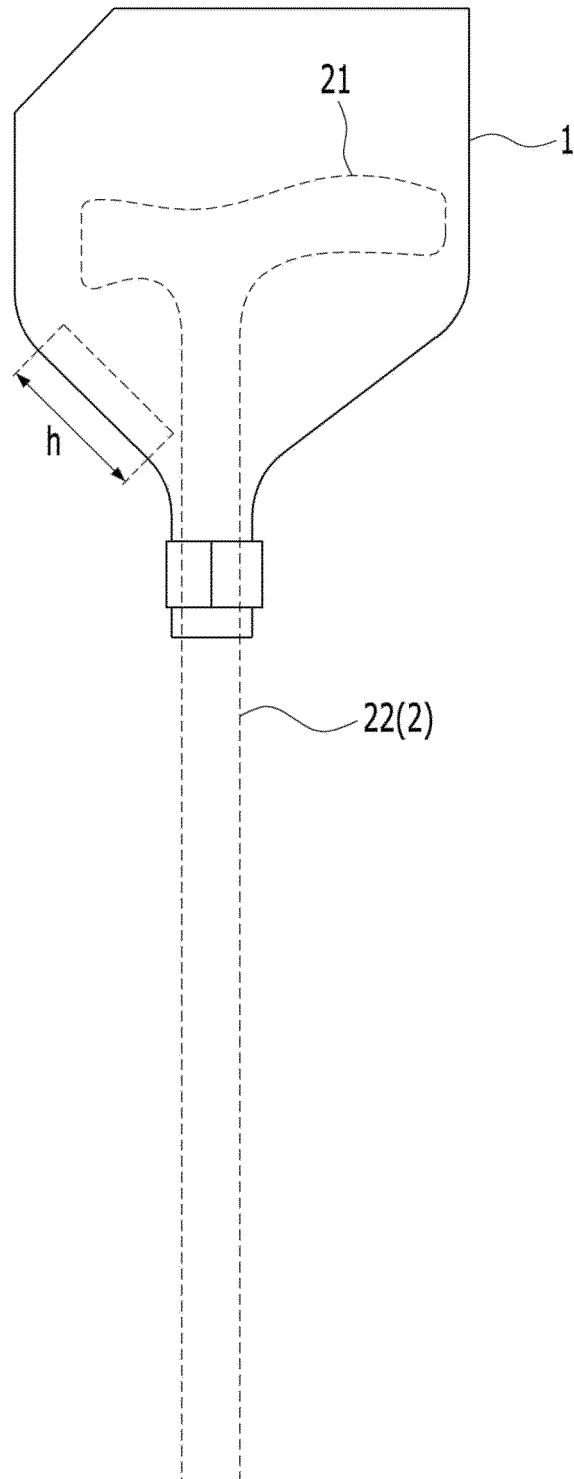
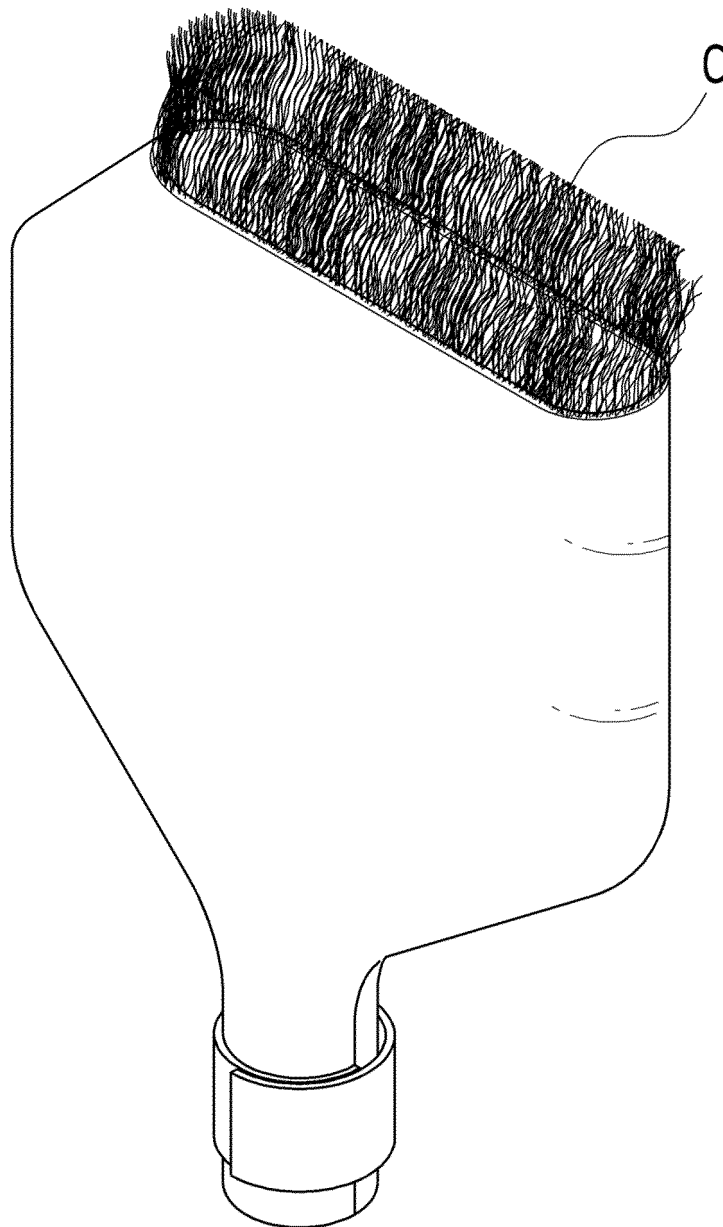


FIG. 6



INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2021/013748

A. CLASSIFICATION OF SUBJECT MATTER

A45B 3/00(2006.01)i; A45B 9/02(2006.01)i; A63B 29/08(2006.01)i; A45B 9/00(2006.01)i

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)

A45B 3/00(2006.01); A41D 13/08(2006.01); A45B 9/00(2006.01); A45B 9/02(2006.01); A63B 29/08(2006.01);
B62B 9/20(2006.01)

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

Korean utility models and applications for utility models: IPC as above
Japanese utility models and applications for utility models: IPC as above

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

eKOMPASS (KIPO internal) & keywords: 손잡이(handle), 보온(warm), 벨크로(velcro), 지팡이(cane), 커버(cover)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 11-216006 A (FUATEC K.K.) 10 August 1999 (1999-08-10) See paragraphs [0009]-[0010], [0013] and [0015]; and figures 2-4.	1-2
Y		3-4
Y	KR 20-0454237 Y1 (LIM, Jung Hee et al.) 23 June 2011 (2011-06-23) See paragraph [0015]; and figure 1.	3-4
Y	JP 3129047 U (YAMAMOTO KNITTING CO., LTD.) 01 February 2007 (2007-02-01) See paragraph [0033]; and figure 3.	4
A	JP 2003-054417 A (RECRUIT CO., LTD.) 26 February 2003 (2003-02-26) See paragraphs [0033]-[0035]; and figure 2.	1-4

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Date of the actual completion of the international search

12 January 2022

Date of mailing of the international search report

12 January 2022

Name and mailing address of the ISA/KR

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2021/013748

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
PX	KR 10-2248584 B1 (CHOI, Sang Woong) 04 May 2021 (2021-05-04) See paragraphs [0021]-[0022]; claims 1-2; and figure 1. (This document is a published earlier application that serves as a basis for claiming priority of the present international application.)	1-4

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/KR2021/013748

Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)	Publication date (day/month/year)
JP	11-216006	A	10 August 1999	None	
KR	20-0454237	Y1	23 June 2011	None	
JP	3129047	U	01 February 2007	None	
JP	2003-054417	A	26 February 2003	None	
KR	10-2248584	B1	04 May 2021	None	

Form PCT/ISA/210 (patent family annex) (July 2019)

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- KR 200195945 [0004]