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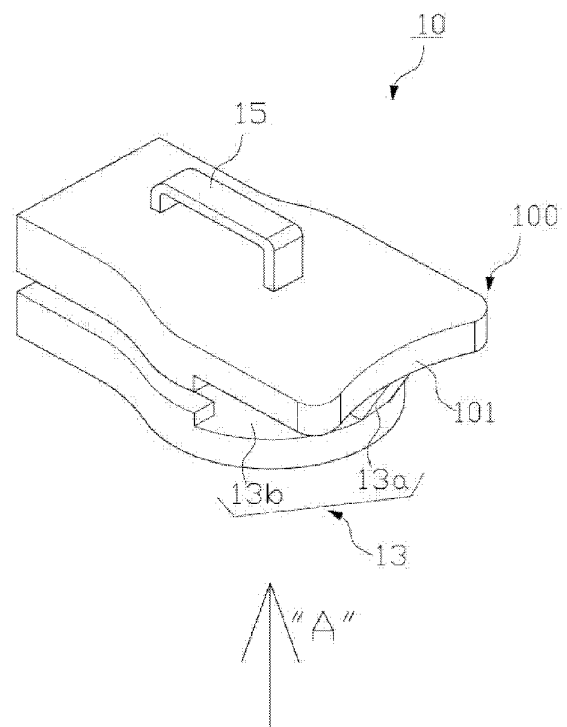
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(54) **ZIPPER SLIDER HAVING INSERTION PREVENTING PART FOR PREVENTING CLOTHING FROM GETTING CAUGHT IN SLIDER**

(57) The present invention relates to a zipper slider having an insertion preventing part for preventing a garment from getting caught in the slider, and the main purpose thereof is to prevent an outer fabric from getting caught in joint parts of the slider.

To this end, the present invention provides a zipper slider that is used to a zipper including multiple couplings symmetrically provided on one side of the zipper in the longitudinal direction, and a zipper tape provided on the other side of the zipper in the longitudinal direction and fixed to the garment, and that comprises a guide part disposed on a center line thereof, joint parts disposed symmetrically on both sides of the top and underside of the guide part in such a manner as to insertedly lock the coupling members thereonto, a hook disposed on any one surface of the joint parts, the hook to which a handle is fitted, and a insertion preventing part extended forwardly from any one of the joint parts or both sides thereof to prevent an outer fabric of the garment from being stuck in the joint parts.

Accordingly, by virtue of the insertion preventing part configured to prevent outside garment from getting caught in the slider when the zipper is used, it is possible to prevent, in advance, a failure in the zipper that has the slider, according to the present invention, which is equipped with the insertion preventing part for preventing the garment from getting caught in the slider.



【FIG. 2】

Description

[Technical Field]

[0001] The present invention relates to a zipper slider, and more particularly, to a zipper slider having an insertion preventing part for preventing a garment from being stuck therein wherein the front side of the slider is changed in shape, thereby preventing an object adjacent to a zipper, that is, an outer fabric of the garment from being stuck in the zipper when the zipper pulls up.

[Background Art]

[0002] Generally, a variety of zippers have been used to open and close a garment or the like.

[0003] For example, as shown in FIG.1A, a conventional zipper Z is representative, and the conventional zipper Z is configured as follows.

[0004] The conventional zipper Z for use in a garment includes a plurality of coupling members C symmetrically disposed on one side thereof in a longitudinal direction thereof, a zipper tape T disposed on the other side thereof in the longitudinal direction thereof in such a manner as to be fixed to the garment, and a slider S adapted to coupledly lock the coupling members C thereto.

[0005] The slider S includes a guide part G, joint parts J, a handle H and a hook K to which the handle H is fitted.

[0006] The guide part G connects the divided upper and lower portions of the slider S with each other to gently perform the opening and closing operations of the coupling members C.

[0007] The joint parts J serve to couple the coupling members C guided by the guide part G to each other. That is, the coupling members C guided by the guide part G are fastened to each other at reduced rear side portions R of the joint parts J.

[0008] According to the conventional zipper Z, however, an outer fabric of the garment may be frequently inserted into the joint parts J and thus stuck in the slider S, together with the coupling members C guided to the joint parts J.

[0009] While the outer fabric of the garment is being forcedly separated from the zipper Z, further, the zipper Z may be malfunctioned or the garment may be seriously damaged.

[0010] So as to solve the above-mentioned problems, as shown in FIG.1B, a zipper into which a garment is not stuck is disclosed in Korean Patent Application Laid-open No. 10-2014-0096381, and the conventional zipper further includes inclined surfaces D adapted to remove the gap between a slider S and coupling members (not shown) in such a manner as to be brought into close contact with the coupling members passing through the slider S, thereby preventing the garment or cloth from being stuck in the zipper when the slider S and the coupling members are coupled to each other.

[0011] In the same manner as above, however, the

outer fabric of the garment is undesirably stuck in the slider so that it may be torn or the zipper may be malfunctioned.

[0012] According to the conventional zipper, further, the spare space formed on the entrance of the slider as an initial insertion section of the garment becomes reduced due to the addition of the inclined surfaces D inside the slider, so that when the slider is coupled to the coupling members, a stronger friction than that in the existing zipper may be generated to allow the life span of the zipper product to be undesirably shortened, and while the slider is being coupled or decoupled to and from the coupling members, it may be not operated gently.

[Disclosure]

[Technical Problem]

[0013] Accordingly, the present invention has been made in view of the above-mentioned problems occurring in the prior art, and it is an object of the present invention to provide a zipper slider having an insertion preventing part for preventing a garment from being stuck in a zipper, so that while the zipper is operating, the outer fabric of the garment is not stuck in the joint parts of the slider and the zipper is not malfunctioned.

[Technical Solution]

[0014] To accomplish the above-mentioned object, according to the present invention, there is provided a zipper slider having an insertion preventing part for preventing a garment from getting caught in the slider, and used to a zipper that includes multiple couplings symmetrically provided on one side of the zipper in the longitudinal direction, and a zipper tape provided on the other side of the zipper in the longitudinal direction and fixed to the garment, the zipper slider comprising a guide part disposed on a center line thereof, joint parts disposed symmetrically on both sides of the top and underside of the guide part in such a manner as to insertedly lock the coupling members thereonto, a hook disposed on any one surface of the joint parts, the hook to which a handle is fitted, and an insertion preventing part extended forwardly from any one of the joint parts or both sides thereof to prevent an outer fabric of the garment from being stuck in the joint parts.

[0015] Further, the insertion preventing part has a concave groove formed on the center thereof when viewed on the plane thereof, so that both corners thereof protrude.

[0016] Furthermore, the insertion preventing part has a slant surface gradually reduced in thickness toward the front thereof from the front end of the hook.

[Advantageous Effects]

[0017] According to the present invention, the zipper

slider having the insertion preventing part is configured wherein while the zipper is operating, the outer fabric of the garment is not stuck in the joint parts of the slider by means of the insertion preventing part, thereby preventing the zipper from being malfunctioned.

[Description of Drawings]

[0018]

FIG. 1A is a schematically perspective view showing a conventional zipper.

FIG. 1B is a perspective view showing a conventional zipper slider.

FIG. 2 is a perspective view showing a zipper slider according to a first embodiment of the present invention.

FIG. 3 is a perspective view showing the zipper slider viewed in a direction of "A" of FIG. 2.

FIG. 4 is a perspective view showing the operating effect of the zipper slider according to the present invention.

FIG. 5 is a sectional view taken along the line B-B of FIG. 4.

FIG. 6 is a perspective view showing a zipper slider according to a second embodiment of the present invention.

FIG. 7 is a perspective view showing a zipper slider according to a third embodiment of the present invention.

[Mode for Invention]

[0019] Referring to FIGS. 2 to 5, a zipper slider 13 (hereinafter, referred to as "slider") having an insertion preventing part 100 for preventing a garment from getting stuck in the slider according to the present invention includes a guide part 13a disposed on a center line thereof, joint parts 13b disposed symmetrically on both sides of the guide part 13a in such a manner as to insertedly lock coupling members 11a thereonto, a hook 15 disposed on any one surface of the joint parts 13b, a handle 17 fitted to the hook 15, and the insertion preventing part 100.

[0020] The zipper slider according to the present invention is the same as the conventional zipper slider, except that it is provided with the insertion preventing part 100, and therefore, the detailed explanation on the same parts as each other will be avoided.

[0021] The insertion preventing part 100 is extended forwardly from any one of the joint parts 13b or both sides

thereof when referring to the direction as shown. As shown in FIG. 4, the reason why the insertion preventing part 100 is extended forwardly from any one of the joint parts 13b is that the insertion of an outer fabric 11aa of the garment into the joint parts 13b is prevented before the coupling members 11a are inserted into the joint parts 13b of the slider 13. The insertion preventing part 100 has a concave groove 101 formed on the center thereof when viewed on the plane thereof, so that both corners thereof protrude outward.

[0022] As shown, the concave groove 101 has a shape of an arch, or even if the concave groove 101 has a shape of "□", of course, the object of the present invention can be achieved.

[0023] Now, an explanation on the operating effect of the slider 13 having the insertion preventing part 100 according to the present invention will be given with reference to FIGS. 4 and 5.

[0024] As shown, first, the slider 13 moves to one side of a zipper 10, and at the same time, the insertion preventing part 100 moves. At this time, the insertion preventing part 100 is located between the coupling members 11a and the outer fabric 11aa, thereby preventing the outer fabric 11aa from being inserted into the slider 13.

[0025] FIG. 6 is a perspective view showing a zipper slider according to a second embodiment of the present invention, and in this embodiment, an insertion preventing part 100 has a slant surface 103 gradually reduced in thickness toward the front end thereof from the front end of the hook 15.

[0026] The reason why the slant surface 103 gradually reduced toward the front end thereof (reduced by an inclination of "R") is that the insertion preventing part 100 easily moves between the coupling members 11a and the outer fabric 11aa and at the same time the insertion possibility of the outer fabric 11a into the slider 13 is removed to the maximum.

[0027] FIG. 7 is a perspective view showing a zipper slider according to a third embodiment of the present invention, and in this embodiment, an insertion preventing part 100 is enlarged to a shape of a fan from both sides thereof to completely prevent the outer fabric 11aa from being inserted into the slider 13, thereby basically preventing the outer fabric 11aa from being stuck in the joint parts 13b.

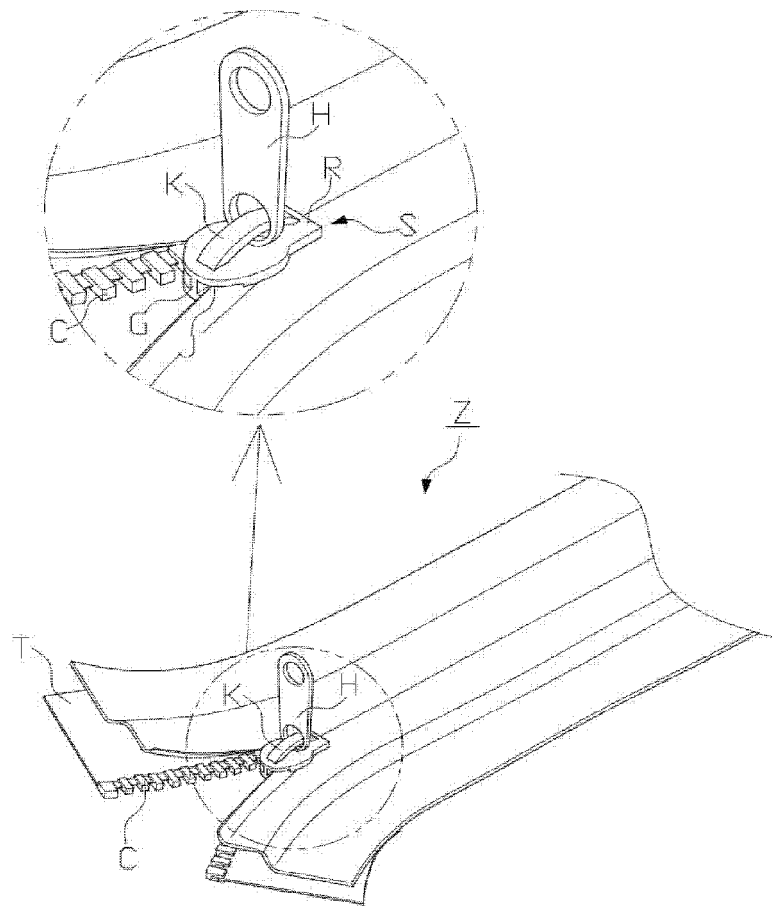
[0028] According to the present invention, the slider 13 having the insertion preventing part 100 is configured wherein while the zipper 10 is operating, the outer fabric 11aa of the garment is not completely stuck in the joint parts 13b of the slider 13 by means of the insertion preventing part 100 extended forwardly from the slider 13, thereby preventing the outer fabric 11aa from being damaged or torn.

[0029] Further, the insertion of the outer fabric 11aa into the joint parts 13b is completely prevented to allow the life span of the zipper 10 to be extended.

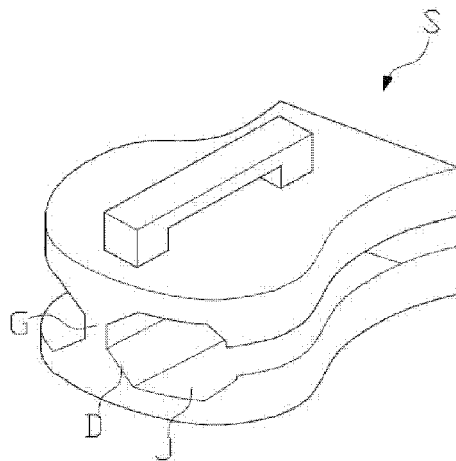
While the present invention has been described with reference to the particular illustrative embodiments, it is not to be restricted by the embodiments but only by the appended claims. It is to be appreciated that those skilled in the art can change or modify the embodiments without departing from the scope and spirit of the present invention.

Claims

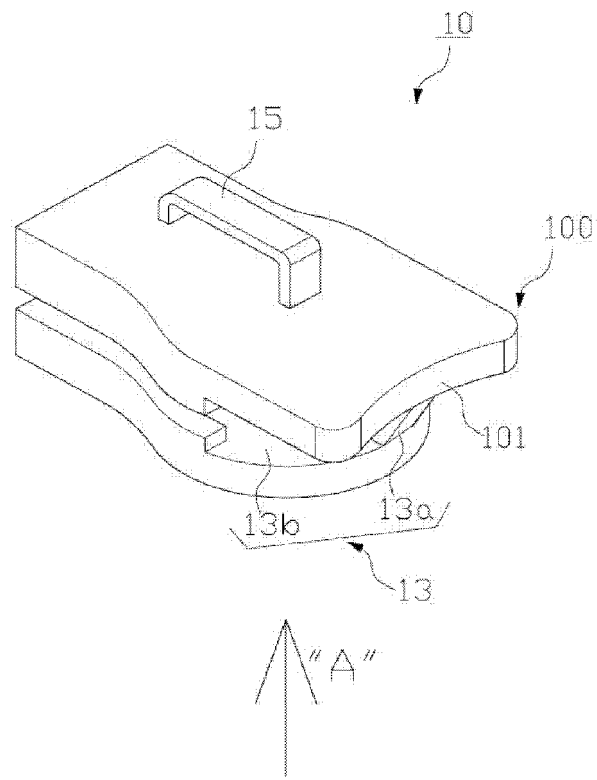
1. A zipper slider having an insertion preventing part for preventing a garment from getting caught in the slider, and used to a zipper that includes multiple couplings symmetrically provided on one side of the zipper in the longitudinal direction, and a zipper tape provided on the other side of the zipper in the longitudinal direction and fixed to the garment, the zipper slider comprising:
 - a guide part disposed on a center line thereof, joint parts disposed symmetrically on both sides of the top and underside of the guide part in such a manner as to insertedly lock the coupling members thereonto,
 - a hook disposed on any one surface of the joint parts, the hook to which a handle is fitted, and
 - a insertion preventing part extended forwardly from any one of the joint parts or both sides thereof to prevent an outer fabric of the garment from being stuck in the joint parts.
2. The zipper according to claim 1, wherein the insertion preventing part has a concave groove formed on the center thereof when viewed on the plane thereof, so that both corners thereof protrude outward.
3. The zipper according to claim 1, wherein the insertion preventing part has a slant surface gradually reduced in thickness toward the front thereof from the front end of the hook.



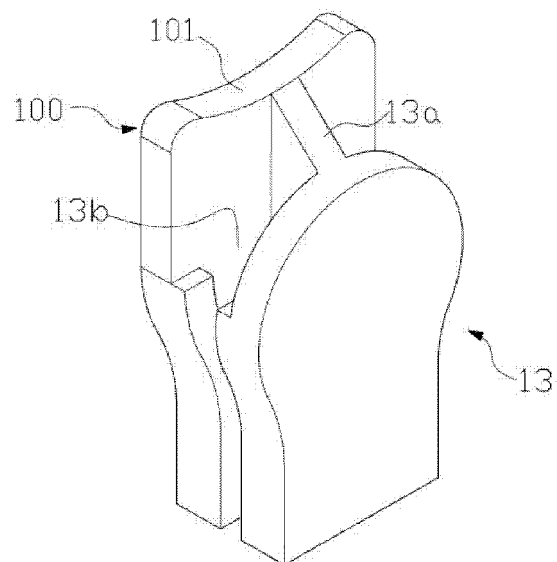
【FIG. 1A】



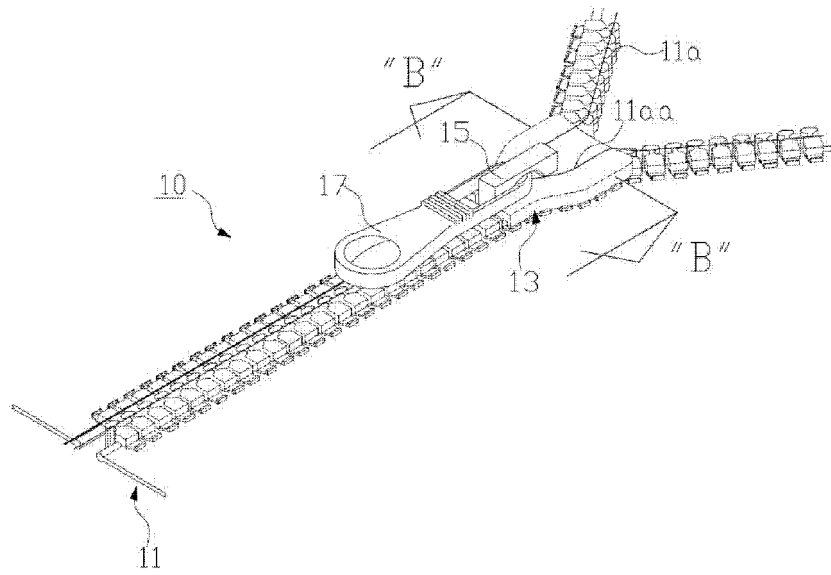
【FIG. 1B】



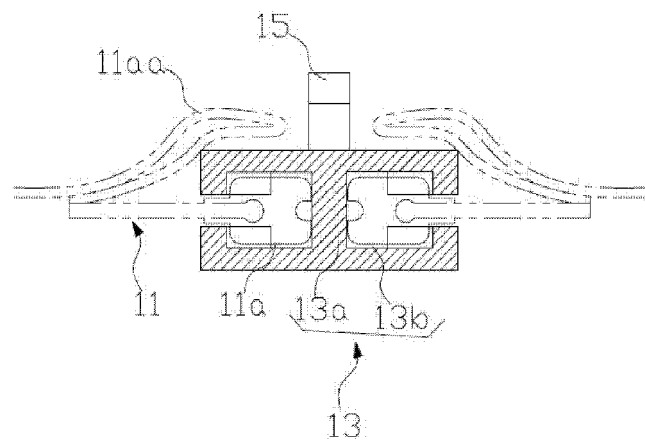
【FIG. 2】



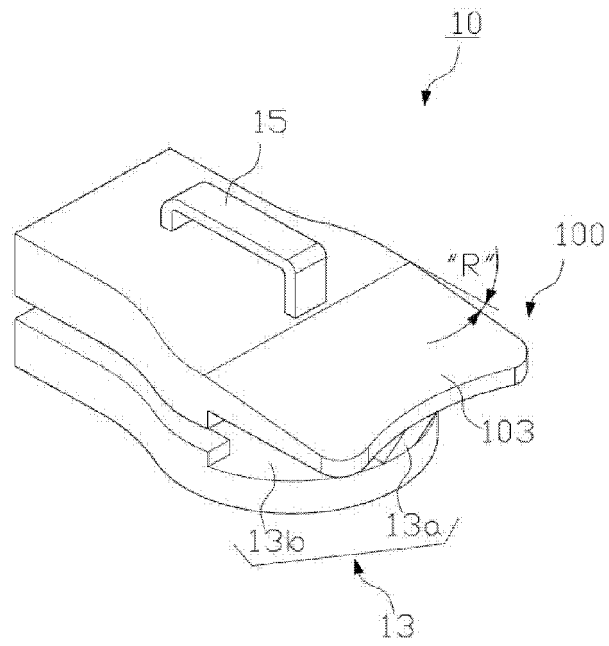
【FIG. 3】



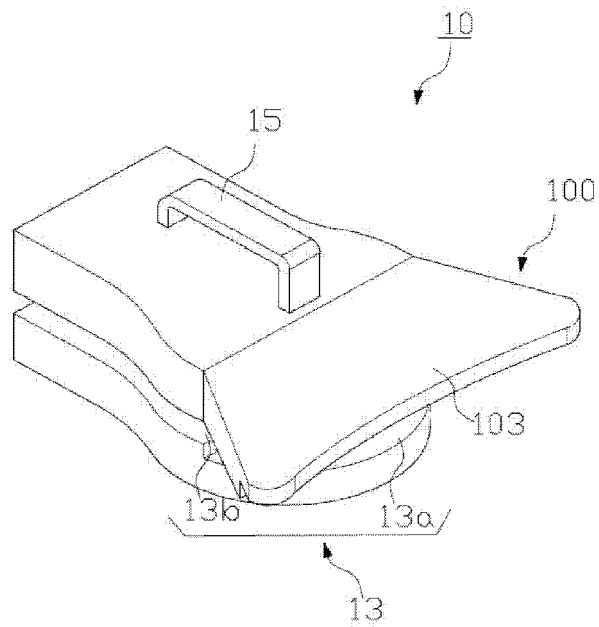
【FIG. 4】



【FIG. 5】



【FIG. 6】



【FIG. 7】

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2016/004309

A. CLASSIFICATION OF SUBJECT MATTER

A44B 19/26(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)

A44B 19/26; A44B 19/00; A44B 19/18

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: slider for zipper, zipper tape, coupling, coupling part, pinch protection, inflow prevention hole, groove, ring

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KR 20-2000-0012768 U (OH, Se Young) 15 July 2000 See abstract; claims 1-3; figures 1-4.	1,2
Y		3
Y	US 2007-0186392 A1 (SEWITCH, S. A., Jr.) 16 August 2007 See abstract; paragraph [0016]; figures 1, 3.	3
A	KR 20-0205027 Y1 (JEON, Pil - Dong) 01 December 2000 See claim 1; figures 1, 3, 4.	1-3
A	KR 20-0414322 Y1 (SON, Kong Ju) 18 April 2006 See paragraph [0013]; claim 1; figures 1-4.	1-3
A	KR 20-0419781 Y1 (PARK, Ji Hong) 28 June 2006 See claims 1-3; figures 1-3.	1-3

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

* Special categories of cited documents:

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"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

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Date of the actual completion of the international search

19 AUGUST 2016 (19.08.2016)

Date of mailing of the international search report

19 AUGUST 2016 (19.08.2016)

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/KR2016/004309

Patent document cited in search report	Publication date	Patent family member	Publication date
KR 20-2000-0012768 U	15/07/2000	NONE	
US 2007-0186392 A1	16/08/2007	NONE	
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KR 20-0414322 Y1	18/04/2006	NONE	
KR 20-0419781 Y1	28/06/2006	NONE	

Form PCT/ISA/210 (patent family annex) (January 2015)

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- KR 1020140096381 [0010]