

INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2017/012822

A. CLASSIFICATION OF SUBJECT MATTER

H04M 1/04(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)

H04M 1/04; A45C 11/00; A45F 5/00; H04M 1/06; A44B 13/00; H04B 1/38

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: ring holder, ring, mounting, positioning, stopper, protrusion

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 10-1753520 B1 (PARK, Seung Chan) 04 July 2017 See claim 3 and figure 1.	1-8
A	KR 10-1316210 B1 (KIM, Beom Jin) 08 October 2013 See claim 1 and figure 2.	1-8
A	KR 10-1280783 B1 (YOON, Eem Sik) 05 July 2013 See claim 1 and figure 1.	1-8
A	KR 10-1062557 B1 (KIM, Hye Ryon) 05 September 2011 See claims 1-2 and figures 1-3.	1-8
A	KR 10-2016-0125056 A (GREEN-CHEM CO., LTD. et al.) 31 October 2016 See claim 1 and figures 1-2.	1-8
A	US 2013-0146625 A1 (KARLE, Bryan et al.) 13 June 2013 See claims 1-3 and figures 1-2.	1-8



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

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

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

"&" document member of the same patent family

Date of the actual completion of the international search

30 MAY 2018 (30.05.2018)

Date of mailing of the international search report

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Name and mailing address of the ISA/KR

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/KR2017/012822

Patent document cited in search report	Publication date	Patent family member	Publication date
KR 10-1753520 B1	04/07/2017	NONE	
KR 10-1316210 B1	08/10/2013	KR 10-1316363 B1 WO 2013-151324 A1	08/10/2013 10/10/2013
KR 10-1280783 B1	05/07/2013	NONE	
KR 10-1062557 B1	05/09/2011	CN 102783039 A JP 2014-503160 A KR 10-1062570 B1 WO 2012-086908 A1	14/11/2012 06/02/2014 05/09/2011 28/06/2012
KR 10-2016-0125056 A	31/10/2016	NONE	
US 2013-0146625 A1	13/06/2013	NONE	