

INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2017/014015

A. CLASSIFICATION OF SUBJECT MATTER

E01F 15/04(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)

E01F 15/04; E01F 15/02; E01F 15/00

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: guard rail, prop, fence, reinforcement, surface of slope, inclined plane, boundary stone, coupling, fixing, ground, secondary traffic accident, impact, absorption, road, vehicle, collision

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	KR 10-1355841 B1 (KONGJU NATIONAL UNIVERSITY INDUSTRY-UNIVERSITY COOPERATION FOUNDATION) 29 January 2014 See paragraphs [0031]-[0033], [0039]; and figures 1-2, 5-9.	1-8
Y	KR 10-1191142 B1 (WI, Kwang-Soo) 15 October 2012 See paragraphs [0006]-[0007], [0018], [0021]-[0023]; and figure 1.	1-8
Y	JP 2005-188031 A (NIPPON STEEL METAL PROD CO., LTD.) 14 July 2005 See paragraphs [0029]-[0034]; and figures 4, 7.	1-8
A	KR 10-1626257 B1 (PARK, Sun Hwa) 31 May 2016 See claims 1-3; and figures 2-4.	1-8
A	KR 10-1066918 B1 (WI, Kwang-Soo et al.) 27 September 2011 See paragraphs [0021]-[0029]; and figures 1-3.	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

12 MARCH 2018 (12.03.2018)

Date of mailing of the international search report

13 MARCH 2018 (13.03.2018)

Name and mailing address of the ISA/KR

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/KR2017/014015

Patent document cited in search report	Publication date	Patent family member	Publication date
KR 10-1355841 B1	29/01/2014	KR 10-1475777 B1	24/12/2014
KR 10-1191142 B1	15/10/2012	NONE	
JP 2005-188031 A	14/07/2005	NONE	
KR 10-1626257 B1	31/05/2016	NONE	
KR 10-1066918 B1	27/09/2011	NONE	