### (12)

### **EUROPEAN PATENT APPLICATION**

(43) Date of publication: **08.11.2023 Bulletin 2023/45** 

(21) Application number: 23020196.4

(22) Date of filing: 25.04.2023

(51) International Patent Classification (IPC): E04G 21/24 (2006.01) E04G 21/32 (2006.01)

(52) Cooperative Patent Classification (CPC): E04G 21/3219; E04G 21/3204

(84) Designated Contracting States:

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

**Designated Extension States:** 

BA

**Designated Validation States:** 

KH MA MD TN

(30) Priority: 03.05.2022 DK PA202200418

(71) Applicant: MAG Profiles ApS 4400 Kalundborg (DK)

(72) Inventor: The designation of the inventor has not yet been filed

(74) Representative: Butler, Kathryn Louise Sirius IP

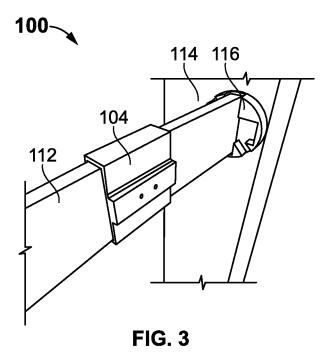
Festival House Jessop Avenue

Cheltenham, Gloucestershire GL50 3SH (GB)

### (54) A KIT OF PARTS FOR SECURING RAILINGS ON A CONSTRUCTION SITE

(57) A kit of parts (100) for securing railings (112) in doors and windows on the construction site, are disclosed. The kit of parts (100) for securing railings (112), comprises: a securing device (102, 104, 106, 108, 110) and a circular wall attachment (116). The securing device (102, 104, 106, 108, 110) comprises a rectangular opening (102) for securing rails between a pair of first outer side walls and a pair of second outer side walls where each of said walls constitute a side of said rectangular

opening (102). The first pair of outer side walls (104 and 106) include one or more protrusions at both the side walls (104 and 106). The circular wall attachment (116) having a circular base (118) for being attached to a wall surface (114), wherein the circular wall attachment (116) holds the railing in place on the wall surface (114) when in use. The circular base (118) includes a plurality of sectional grooves (120) for receiving and holding the railing (112) in place in the circular base (118).



30

35

40

45

#### Description

#### TECHNICAL FIELD OF THE INVENTION

**[0001]** The invention disclosed herein generally relates to securing devices. More particularly, the present invention relates to a kit of parts for securing railings in doors and windows on construction sites.

1

#### **BACKGROUND**

**[0002]** In general, railings are built on the construction site for floors and stairs. These are generally built for providing security and safety. In many situations, a temporary railing may be built and then later torn down when the permanent rail is to be installed. The railings are generally made using cast iron, stainless steel, timber, and plastics.

**[0003]** In all types of industry today, there is an everincreasing concern for the safety of the workers. It is intended to minimize the possibility of the railing falling off accidentally during the normal course of work. Further, improper fixing of the railing may result in structural problems.

**[0004]** Though these railings provide safety, in most situations these are disengaged from the long connections and can fall off on the construction site. Further, during construction, these railings are left open-ended which can affect the workers. This can affect the workers and the construction. Therefore, there is a need for a device or kit of parts that holds or secures the railings in place on the construction site.

[0005] A prior art, KR100981308B1 of LEE EUN OK, discloses a kit of parts for securing railings in doors and windows on the construction site, comprising: a securing device comprising an opening for securing rails between a pair of first outer side walls and a second outer side wall where each of said walls constitute a side of said opening; wherein the first pair of outer side walls include one or more protrusions at both the side walls; and an essentially circular wall attachment having an essentially circular base for being attached to a wall surface, wherein the circular wall attachment holds the railing in place on the wall surface when in use; wherein the circular base includes one sectional groove for receiving and holding the railing in place in the circular base. However, abovementioned prior art fails to disclose a kit of parts that is more versatile with the securing device comprising a rectangular opening between four outer side walls, and the circular base includes a plurality of sectional grooves for receiving and holding the railing in place in the circular

**[0006]** In light of all the above-mentioned drawbacks, there is a need for a kit of parts that secures the railing in place on a construction site in a more versatile manner. Also, there is a need for a kit of parts that is easy to mount at homes in windows and doors.

#### SUMMARY OF THE INVENTION

[0007] The above objects are achieved with a kit of parts for securing railings in doors and windows on the construction site, are disclosed. The kit of parts for securing railings, comprises: a securing device and a circular wall attachment. The securing device comprises a rectangular opening for securing rails between a pair of first outer side walls and a pair of second outer side walls where each of said walls constitute a side of said rectangular opening. The first pair of outer side walls include one or more protrusions at both the side walls. The circular wall attachment having a circular base for being attached to a wall surface, wherein the circular wall attachment holds the railing in place on the wall surface when in use. The circular base includes a plurality of sectional grooves for receiving and holding the railing in place in the circular base.

**[0008]** Other objects, features and advantages of the present invention will become apparent from the following detailed description.

**[0009]** Preferred embodiments of the invention are set out in the dependent claims.

#### BRIEF DESCRIPTION OF THE DRAWINGS

**[0010]** The foregoing summary, as well as the following detailed description of the invention, is better understood when read in conjunction with the appended drawings.

FIG. 1 exemplarily illustrates a perspective view of a securing device.

FIG. **2** exemplarily illustrates a side view of the securing device.

FIG. **3** exemplarily illustrates a perspective view of the securing device mounted to a railing.

FIGs. **4-6** exemplarily illustrate various perspective views of a circular wall attachment.

FIGs. **7-8** exemplarily illustrate various perspective views of the circular wall attachment holding a railing in place.

FIGs. **9-10** exemplarily illustrate various perspective views of a locking device.

#### DETAILED DESCRIPTION OF THE INVENTION

[0011] In one embodiment of the present invention, a kit of parts (100) for securing railings (112) in doors and windows on the construction site, are disclosed. Referring to FIGs. 1-3, a perspective view of a securing device (hereinafter referred as device) (102, 104, 106, 108, 110), is illustrated. The kit of parts 100 is used for securing or holding railings 112 on a construction site, comprises: a

15

20

25

30

securing device (102, 104, 106, 108, 110) and a circular wall attachment (116).

[0012] The securing device (102, 104, 106, 108, 110) comprises a rectangular opening 102 for securing rails between a pair of first outer side walls (104 and 106) and a pair of second outer side walls where each of said walls constitute a side of said rectangular opening 102. The first pair of outer side walls (104 and 106) include one or more protrusions 108 at both the side walls (104 and 106). The kit of parts 100 further includes one or more fastening holes 110 for fastening the kit of parts 100 with the railings 112 (as shown in FIG. 1). The kit of parts 100 can also be used independently on other products. The kit of parts 100 is made of recyclable plastic material, wood and other materials.

[0013] Referring to FIGs. 4-6, various perspective views of a circular wall attachment 116, are illustrated. The circular wall attachment 116 includes a circular base 118 for being attached to a wall surface 114. The circular base 118 includes a plurality of sectional grooves 120 for receiving and holding the railing 112 in place in the circular base (118). The circular wall attachment 116 further includes one or more fastening holes 122 for fastening with the railing 112.

[0014] Referring to FIGs. 7-8, various perspective views of the circular wall attachment 116 affixed to the wall surface 112, are illustrated. The circular wall attachment 116 is used for holding the railing 112 in place on the wall surface 114 when in use. The railing 112 is disposed between the sectional grooves 120 in the wall attachment 116 configured to snugly position the railing 112 in doors or windows in construction site. The circular wall attachment 116 can be varied according to customer's preference.

[0015] Referring to FIGs. 9-10, various perspective views of a locking device 124 for holding the railing 112, are illustrated. The locking device 124 is used for holding the railing 112 in place (as shown in FIG. 9). The locking device 124 includes a small opening 126 and a handle support 128 at any one end. The locking device 124 further includes one or more fastening holes 130 for securing the railing (as shown in FIG. 8). The locking device 124 can be varied according to customer's preference. [0016] Advantageously, the kit of parts 100 of the present invention is used for securing the railing in place. Also, the kit of parts 100 is used for securing the railing with windows and doors. The kit of parts 100 is made of recyclable material. Further, the kit of parts 100 is made of plastic and is cost-effective.

**[0017]** The foregoing examples have been provided merely for the purpose of explanation and are in no way to be construed as limiting of the present concept disclosed herein.

### Claims

1. A kit of parts (100) for securing railings (112) in doors

and windows on the construction site, comprising:

a securing device (102, 104, 106, 108, 110) comprising a rectangular opening (102) for securing rails between a pair of first outer side walls (104 and 106) and a pair of second outer side walls where each of said walls constitute a side of said rectangular opening (102); wherein the first pair of outer side walls (104 and 106) include one or more protrusions (108) at both the sides walls (104 and 106); and

a circular wall attachment (116) having a circular base (118) for being attached to a wall surface (114), wherein the circular wall attachment (116) holds the railing in place on the wall surface (114) when in use;

wherein the circular base (118) includes a plurality of sectional grooves (120) for receiving and holding the railing (112) in place in the circular base (118).

- 2. The kit of parts (100) of claim 1, wherein the securing device (102,104,106,108,110) further includes one or more fastening holes (110) for fastening the kit of parts (100) with the railings (112).
- The kit of parts (100) of claim 1, wherein the circular wall attachment (116) further includes one or more fastening holes (122) for fastening.
- The kit of parts (100) of claim 1, further includes a locking device (124) for holding the railing in place.

55

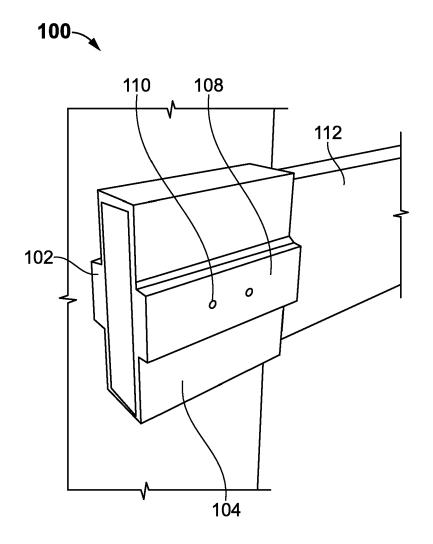
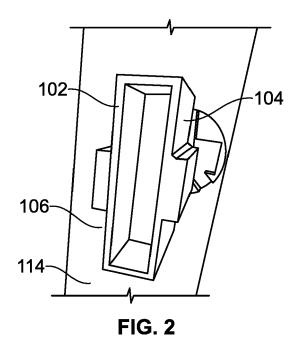
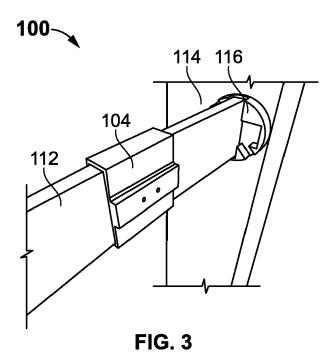


FIG. 1





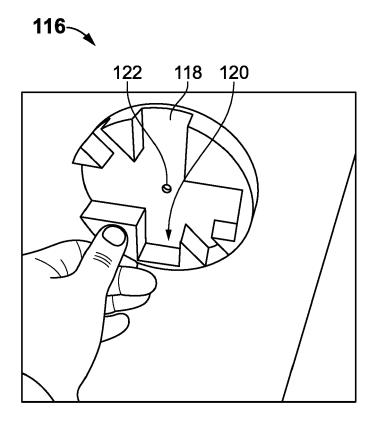
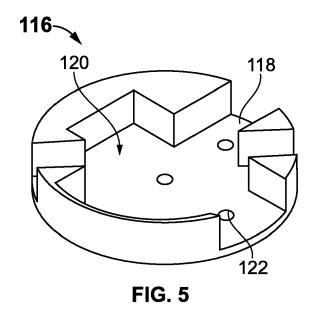
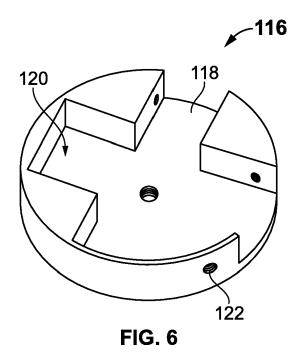
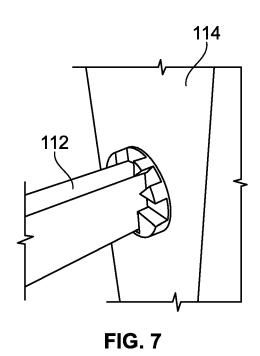
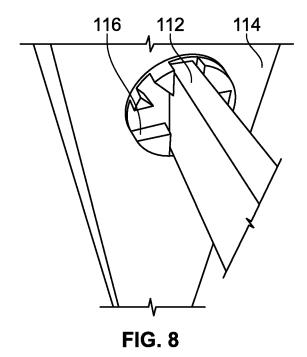


FIG. 4









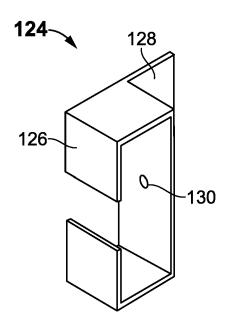
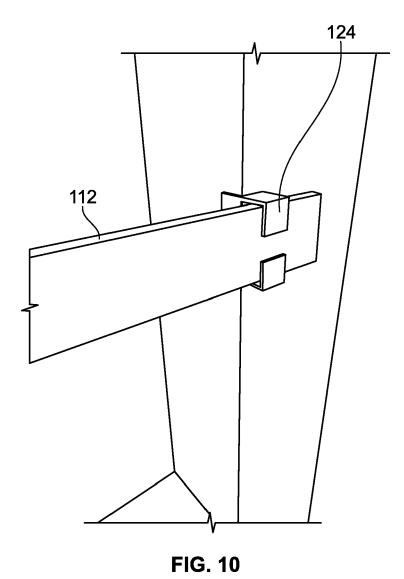


FIG. 9





# **EUROPEAN SEARCH REPORT**

Application Number

EP 23 02 0196

5	
10	
15	
20	
25	
30	
35	
40	
45	
50	

2

EPO FORM 1503 03.82 (P04C01)

55

Category	Citation of document with indicat of relevant passages	ion, where appropriate,		evant laim	CLASSIFIC APPLICATI	ATION OF THE ON (IPC)
x	US 2005/039402 A1 (MUR: ET AL) 24 February 200 * paragraphs [0055] - 22-30 *	5 (2005-02-24)	1,2	, 4	INV. E04G21/ E04G21/	
x	WO 2008/031902 A1 (VIC CORTA SAIZ JOSE MARIA 20 March 2008 (2008-03 * pages 3-5; figures 1	[ES]) -20)	1,2	, 4		
x	US 2007/246299 A1 (WRI AL) 25 October 2007 (2 * paragraphs [0023] - *	007-10-25)		, 4		
x	CA 2 623 168 A1 (VIGNE 10 September 2009 (200 * paragraph [0002]; fi	9-09-10)	1,3			
x	US 5 269 394 A (HAROLD 14 December 1993 (1993 * the whole document *	- '	1,3	, 4	TECHNICA SEARCHE	AL FIELDS D (IPC)
x	FR 2 927 920 A1 (NORD 0 28 August 2009 (2009-0 * figures 4-6 *		1,3	, 4		
	The present search report has been	drawn up for all claims				
	Place of search	Date of completion of the search	:h		Examiner	
	The Hague	21 September 2	2023	Gar	mendia I	rizar, A
X : part Y : part	ATEGORY OF CITED DOCUMENTS  icularly relevant if taken alone icularly relevant if combined with another ument of the same category nological background	T : theory or pr E : earlier pate after the filir D : document c L : document c	nt document, ng date sited in the ap	but publi plication reasons	shed on, or	

## EP 4 273 351 A1

### ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 23 02 0196

5

55

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

21-09-2023

						21 05 .
	Patent document cited in search report		Publication date		Patent family member(s)	Publication date
	US 2005039402	A1	24-02-2005	NONE		<u> </u>
	WO 2008031902	A1	20-03-2008	NONE		
	US 2007246299	A1	25-10-2007	NONE		
	CA 2623168	A1	10-09-2009	NONE		
	US 5269394	A	14-12-1993	NONE		
	FR 2927920	<b>A1</b>	28-08-2009	NONE		
,						
NM P0459						
≥						

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

## EP 4 273 351 A1

### REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

## Patent documents cited in the description

• KR 100981308 B1, LEE EUN OK [0005]