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### (54) A COOKING APPLIANCE WITH A CHILD PROTECTOR

(57) The invention relates to a cooking appliance (1) comprising; a hob plate (3), having a flat surface for cooking the foodstuff thereon, at least one assembly unit (4) for assembling a child protector (2). As an improvement, the assembly unit (4) comprises a longitudinal part (41),

extending in depth direction (Z) and an elongated part (42), extending in height direction (Y) with reference to the surface of the hob plate (3), for mounting the child protector (2) as being rotatable around the width direction (X).

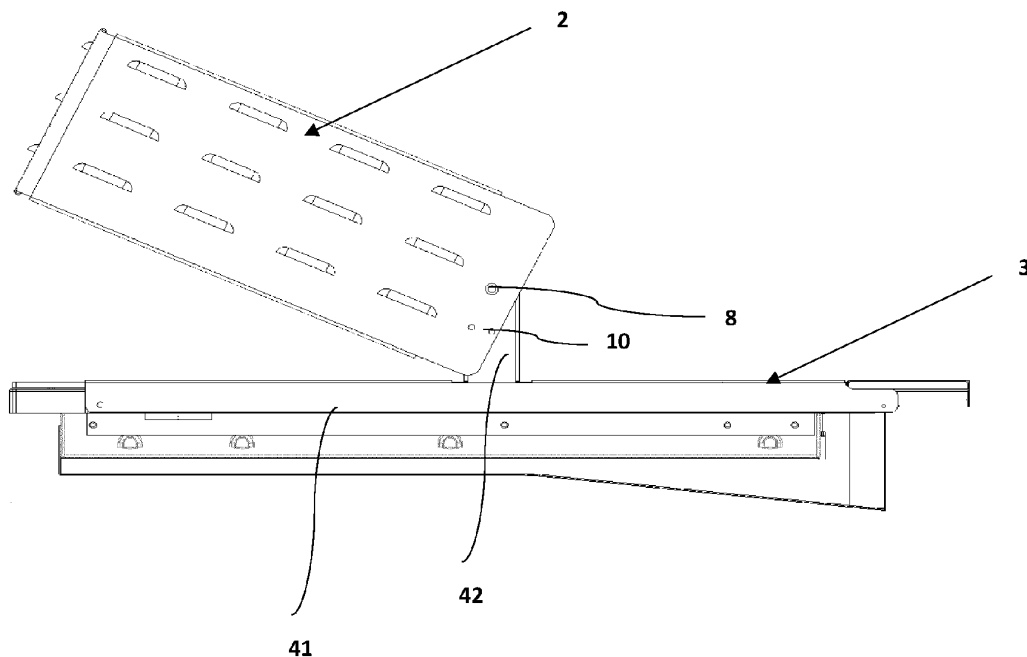


FIG. 7

**EP 4 325 127 A1**

## Description

### TECHNICAL FIELD

[0001] The present invention relates to a domestic cooking appliance with a child protector for homogeneous cooking according to the preamble of claim 1.

### PRIOR ART

[0002] While cooking, users tend to leave the kitchen where the food cooks and the cooking appliances function. Sometimes the small children are present in the household and may tend to interfere with the cooking dish in the kitchen. The child or the pet may reach to the cooking appliance especially to the cooktop. This may cause incredibly harmful accidents and injuries. In order to prevent the access to the cooktop, some blocking covers are invented. However, these solutions lack the robustness and stability. In addition, such items cannot be stored properly after using and cause trouble for the user.

[0003] The document numbered CA2066861 discloses a stove which prevents a small child from approaching the hot burners and getting hurt. In this invention, the top of the stove is surrounded by a shield that prevents small children from putting their hands on the burners and from pulling on the handle of pots and pans while the stove is on.

[0004] The invention provides an additional improvement, an additional advantage or an alternative to the prior art.

### BRIEF DESCRIPTION OF THE INVENTION

[0005] An object of the invention is to provide a robust protection unit, which prevents unwanted access to a cooking appliance.

[0006] Furthermore, another object of the invention is to provide an extendible protection unit for variety of cooking appliances.

[0007] Moreover, another object of the invention is to provide a protection against dirt for the glass cover or kitchen wall during cooking process.

[0008] In order to achieve the objects, the invention is a protection unit for cooking appliance configured to prevent access to at least one part of the cooking appliance, comprising a hob plate, having a flat surface for cooking the foodstuff thereon and at least one assembly unit for assembling a child protector. The assembly unit also comprises two parts; a longitudinal part, extending in depth direction and an elongated part, extending in height direction with reference to the surface of the hob plate, for mounting the child protector as being rotatable around the width direction. Thus, rotation of the child protector can be achieved and users may rotate the child protector according to their usage either for protecting the front part of the hob plate or for protecting the rear wall for possible dirt during cooking process.

[0009] In a possible embodiment of the present invention, the assembly unit is a T-shaped bracket. Thus, common and cheap material is used for mounting the appliance and providing rotation of the child protector thereon.

[0010] In a possible embodiment of the present invention, the assembly unit is provided on right and left sides of the hob plate. Thus, child protector is fixed to the cooking appliance from two parts and durability and safety of the system is provided.

[0011] In a possible embodiment of the present invention, the elongated part of the assembly unit is positioned in the middle of the longitudinal part for the angular rotation of the child protector with reference to the surface of the hob plate. Thus, angular rotation of the child protector is achieved and protection from both front and rear part according to users' necessity is also provided.

[0012] In a possible embodiment of the present invention, at least one first fixation hole is provided on the elongated part of the assembly unit for mounting the child protector as being rotatable around the width direction. Thus, easy and practical rotation is provided by means of this stabilized turning point.

[0013] In a possible embodiment of the present invention, at least one locking hole is provided on the elongated part of the assembly unit for fixing the child protector. Thus, possible easy fixation is achieved after positioning the child protector according to users' necessity.

[0014] In a possible embodiment of the present invention, the cooking appliance is a standing oven with a cooktop or a gas cooktop. Thus, by the assembly of the child protector, the concern of a child reaching over the cooking item on a burner of the cooktop or the gas cooktop is eliminated. The child protection is provided by building a blockage before the cooking item.

[0015] In a possible embodiment of the present invention, at least one second fixation hole is configured on the child protector for encountering with the first fixation hole on the assembly unit. Thus, fixation from at least one point could be possible for providing durable child protector and for preventing any possible safety risks during usage.

[0016] In a possible embodiment of the present invention, at least one connection pin is provided for fixing and mounting the child protector to the assembly unit by combining the second fixation hole and the first fixation hole. Thus, at least one fixation point is provided for durable child protector for preventing any possible safety risks during usage.

[0017] In a possible embodiment of the present invention, at least one connection hole is provided thereon for encountering with the locking hole on the assembly unit. Thus, any possible fixation by users is provided for keeping the child protector stabilized during usage.

[0018] In a possible embodiment of the present invention, at least one locking pin is provided for locking the child protector to the assembly unit by combining the locking hole and the connection hole. Thus, flexible usage for stabilizing the child protector is provided for the users.

**[0019]** In a possible embodiment of the present invention, child protector has U-shaped desing. Thus, practical both sided usage is provided. By means of the U-shaped design, both rear wall and front part can be protected according to users' requirement.

**[0020]** In a possible embodiment of the present invention, the child protector has at least one ventilation hole. Thus, continuous oxygen feeding for providing a stable flame is provided.

**[0021]** In a possible embodiment of the present invention, the child protector is made from stainless steel material. Thus, lifetime of the child protector is extended and possible deformation due to the cooking process is prevented

**[0022]** In this context, with the indications "top", "bottom", "front", "rear", "horizontal", "vertical", "upward", "downward", "inner", "outer", "inward", "outward" etc. the positions and orientations given for intended use and intended arrangement of the cooking appliance and for a user then standing in front of the cooking appliance in a closed position and viewing in the direction of the appliance are indicated.

**[0023]** Each possible embodiment disclosed in this text can be combined with the other possible embodiments disclosed in this text if there is no any technical constraint.

## BRIEF DESCRIPTION OF THE FIGURES

**[0024]** The figures, whose brief explanations are here-with provided, are solely intended for providing a better understanding of the present invention and are as such not intended to define the scope of protection or the context in which said scope is to be interpreted in the absence of the description.

Fig. 1 is an isometric view of the cooking appliance with a child protector according to the present invention.

Fig. 2 is an isometric view of the child protector assembled on the cooking appliance according to the present invention.

Fig. 3 is an isometric view of the assembly unit to be assembled with the child protector according to the present invention.

Fig. 4 is a side view of the assembly unit to be assembled with the child protector according to the present invention.

Fig. 5 is a rear view of the assembly unit and child protector, assembled together according to the present invention.

Fig. 6 is a side view of the child protector on the cooking appliance, assembled with the assembly unit according to the present invention.

Fig. 7 is a side view of the child protector while rotating on the cooking appliance according to the present invention.

Fig. 8 is another side view of the child protector while rotating on the cooking appliance according to the present invention.

Fig. 9 is a side view of the child protector rotated on the cooking appliance for protecting rear wall according to the present invention.

Fig. 10 is an isometric view of the cooking appliance together with the assembly unit and the child protector according to the present invention.

Fig. 11 is an exploded view of the assembly unit and X according to the present invention.

## DETAILED DESCRIPTION OF TH FIGURES

**[0025]** In this detailed description, the subject matter is explained with references to examples without forming any restrictive effect only in order to make the subject more understandable.

**[0026]** Fig.1 and 2 illustrates the present invention which relates to a cooking appliance (1); comprising a hob plate (3), having a flat surface for cooking the food-stuff thereon. For preventing easy access to the cooking appliance (1) for any possible safety risk, a child protector (2) is adapted. At least one assembly unit (4) is required for assembling the child protector (2) to the cooking appliance (1) which is also provided on the left and right sides of the hob plate (3) which is positioned on top part of the cooking appliance (1). The directions are given on Fig.2, X-axis, corresponds to a width direction (X) of the cooking appliance (1) mentioned in this document. Y-axis corresponds to a height direction (Y) of the cooking appliance (1) mentioned in this document. Z-axis corresponds to a depth direction (Z) of the cooking appliance (1) mentioned in this document.

**[0027]** As can be seen from Fig. 1 and 2 detailed, multiple ventilation holes (21) are provided on the child protector (2). So, enough amount of oxygen feeding is provided during cooking process. Additionally, risk of finger or other objects inserting into the ventilation holes (21) by children is eliminated.

**[0028]** The assembly unit (4), as shown in Fig. 3-5 and 11, comprises two parts as; a longitudinal part (41) which is extending in depth direction (Z) along with the hob plate (3) and an elongated part (42) which is extending in height direction (Y) with reference to the surface of the hob plate (3). The assembly unit (4) is required for mounting the child protector (2) rotatably around the width direction (X) with reference to the hob plate (3). Preferably, the assembly unit (4) has a T-shaped design. The longitudinal part (41) is the crossbar part of the T-shaped design while the elongated part (42) corresponds to stem part for con-

necting with the child protector (2).

[0029] There are at least two mounting holes (11) on each of the left and right sides of the assembly unit (4) for mounting the assembly unit (4) to the cooking appliance (1). Thus, the child protector (2) enables rotational movement around the width direction (X) with reference to the hob plate (3) surface. Any assembly member, such as screw can be used to provide this assembly.

[0030] Fig. 6 shows that the elongated part (42) of the assembly unit (4) is positioned in the middle of the longitudinal part (41) by dividing the longitudinal part (41) into two equal parts. Therefore, the child protector (2) can be rotate around the width direction (X) and angular rotation of with reference to the surface of the hob plate (3) is provided. When the users prefers to protect children from the cooking surface of the cooking appliance (1), they may rotate the child protector (2) around the width direction (X) and cover/protect the front part of the cooking appliance by preventin little children to access the hob plate (3). Moreover, when the users prefer to protect the rear wall or not covering the front part, they may rotate the child protector again around the width direction (X). thus, rear wall is protected from possible dirt during cooking process.

[0031] There is at least one first fixation hole (5) positioned on the elongated part (42) of the assembly unit (4). Also a second fixation hole (8) is positioned on the child protector (2). The first and second fixation holes (5, 8) are encountering with each other and a connection pin (6) is used for combining and fixing those. Thus, assembly of the child protector (2) with the assembly unit (4), as being rotatable around the width direction (X) is achieved. The fixation from one reference point, which is the connection pin (6), is provided and the child protector (2) become rotatable angularly.

[0032] Fig. 5 and 10 illustrates that; at least one locking hole (7) is positioned on the elongated part (42) of the assembly unit (4). This locking hole (7) encounters with the connection hole (10), provided on the assembly unit, elongated part (42). At least one locking pin (9) is provided for combining and fixing the child protector (2) to the assembly unit (4), thereby to the cooking appliance (1).

[0033] By means of the present invention, easy assembly of the child protector (2) and easy cleaning both for hob plate (3) and the child protector (2) is achieved. Also, using large cooking stuffs (such as pots, pans etc.) on the hob plate (3) is provided since the child protector (2) is removable according to users' neccessity. Additionally, since the child protector (2) is not fixed to the hob plate (3), access to the control panels located at the top part of the hob plate (3) is not prevented andd ergonomical usage can be achieved.

## REFERENCE LIST

[0034]

1. Cooking appliance
2. Child Protector
21. Ventilation hole
3. Hob plate
- 5 4. Assembly unit
41. Longitudinal part
42. Elongated part
5. First fixation hole
6. Connection pin
- 10 7. Locking hole
8. Second fixation hole
9. Locking pin
10. Connection hole
11. Mounting hole
- 15 X Width Direction
- Y Height Direction
- Z Depth Direction

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## Claims

1. A cooking appliance (1) comprising; a hob plate (3), having a flat surface for cooking the foodstuff thereon, at least one assembly unit (4) for assembling a child protector (2) and **characterized in that** the assembly unit (4) comprises a longitudinal part (41), extending in depth direction (Z) and an elongated part (42), extending in height direction (Y) with reference to the surface of the hob plate (3), for mounting the child protector (2) as being rotatable around the width direction (X).
- 25 2. The cooking appliance (1) according to claim 1, wherein the assembly unit (4) is a T-shaped bracket.
- 30 3. The cooking appliance (1) according to any one of the preceding claims, wherein the assembly unit (4) is provided on right and left sides of the hob plate (3).
- 40 4. The cooking appliance (1) according to any one of the preceding claims, wherein the elongated part (42) of the assembly unit (4) is positioned in the middle of the longitudinal part (41) for the angular rotation of the child protector (2) with reference to the surface of the hob plate (3).
- 45 5. The cooking appliance (1) according to any one of the preceding claims, wherein at least one first fixation hole (5) in provided on the elongated part (42) of the assembly unit (4) for mounting the child protector (2) as being rotatable around the width direction (X).
- 50 6. The cooking appliance (1) according to any one of the preceding claims, wherein at least one locking hole (7) is provided on the elongated part (42) of the assembly unit (4) for fixing the child protector (2).

7. The cooking appliance (1) according to any one of the preceding claims, wherein the cooking appliance (1) is a standing cooker with an oven and a cooktop or a gas cooktop. 5
8. The child protector (2) for the cooking appliance (1) according claim 1, wherein at least one second fixation hole (8) is configured thereon for encountering with the first fixation hole (5) on the assembly unit (4). 10
9. The child protector (2) for the cooking appliance (1) according to claim 8, wherein at least one connection pin (6) is provided for fixing and mounting the child protector (2) to the assembly unit (4) by combining the second fixation hole (8) and the first fixation hole (5). 15
10. The child protector (2) for the cooking appliance (1) according claim 1, wherein at least one connection hole (10) is provided thereon for encountering with the locking hole (7) on the assembly unit (4). 20
11. The child protector (2) for the cooking appliance (1) according to claim 10, wherein at least one locking pin (9) is provided for locking the child protector (2) to the assembly unit (4) by combining the locking hole (7) and the connection hole (10). 25
12. The child protector (2) for the cooking appliance (1) according to any one of the claims 8 or 11, wherein the child protector (2) has U-shaped design. 30
13. The child protector (2) according to any one of the claims 8-12, wherein the child protector (2) has at least one ventilation hole (21). 35
14. The child protector (2) according to any one of the claims 8-13, wherein the child protector (2) is made from stainless steel material. 40
15. A system comprising a cooking appliance (1) according to the claims 1-7 and a child protector (2) according to the claims 8-13. 45

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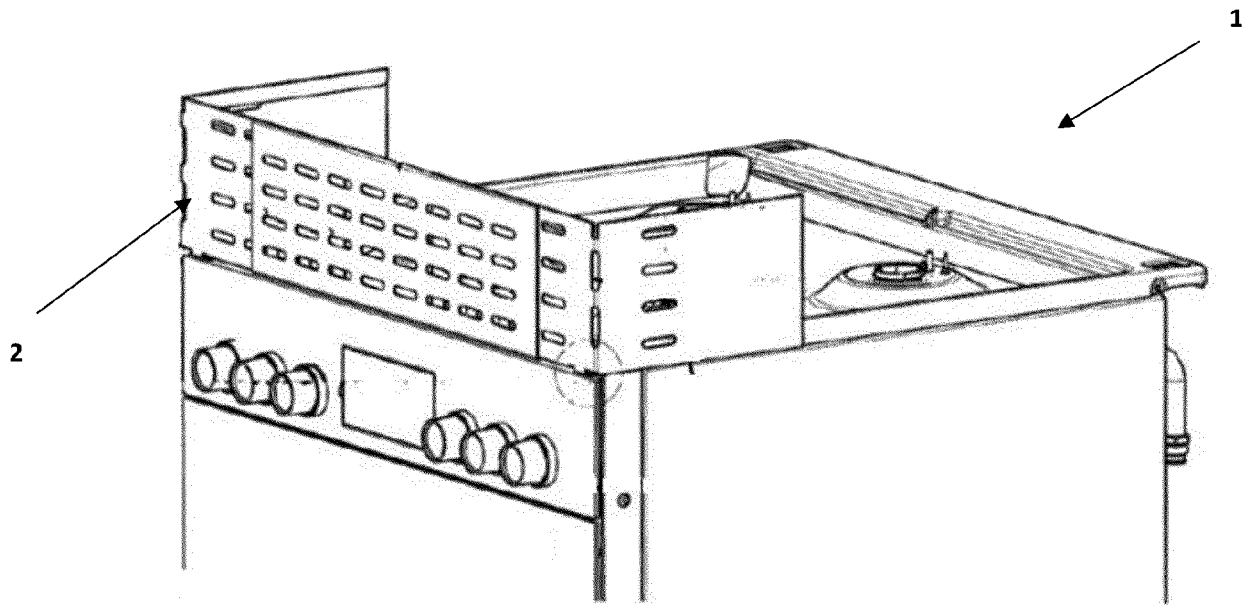


FIG. 1

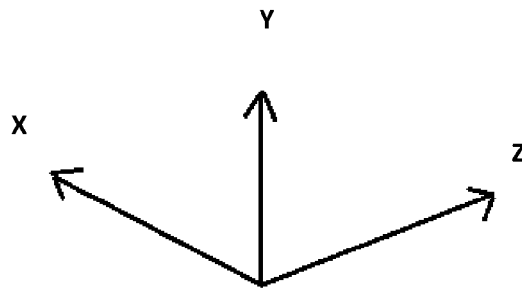
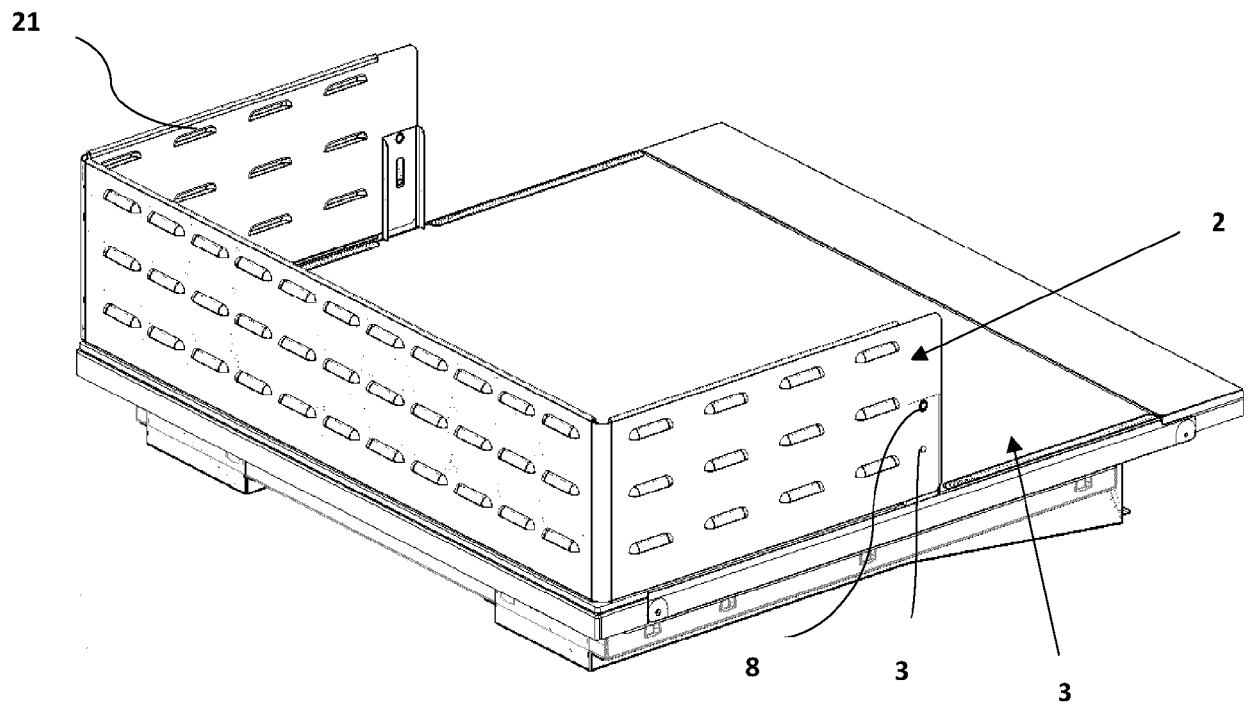


FIG.2

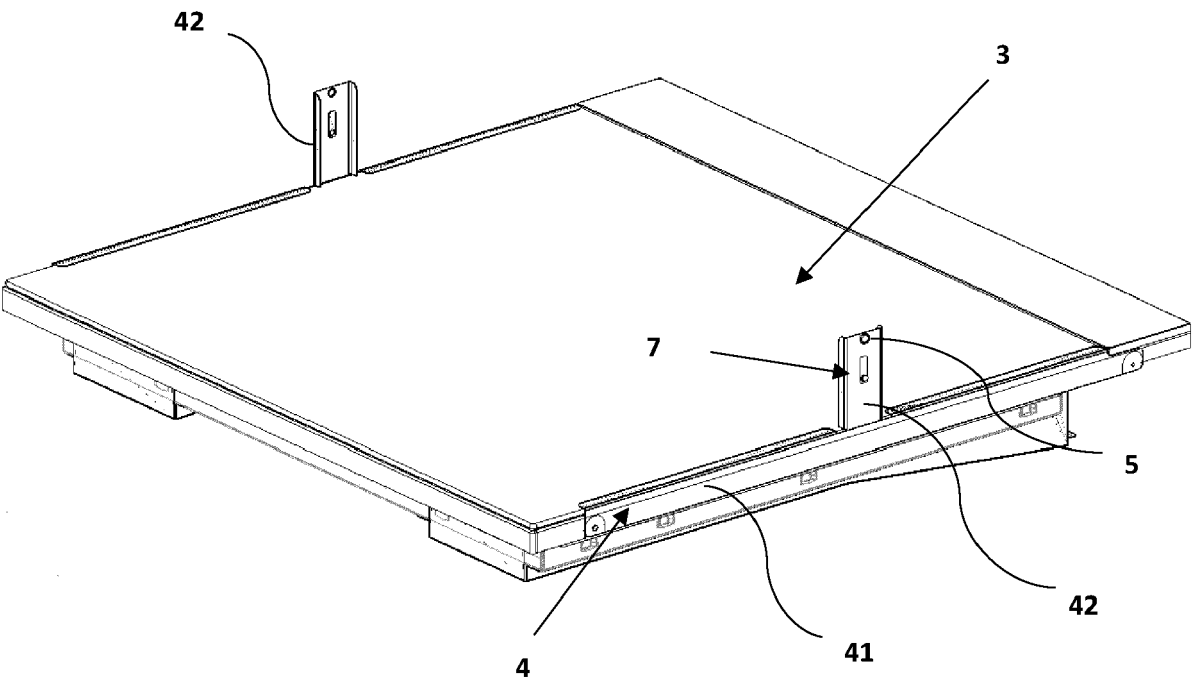


FIG.3



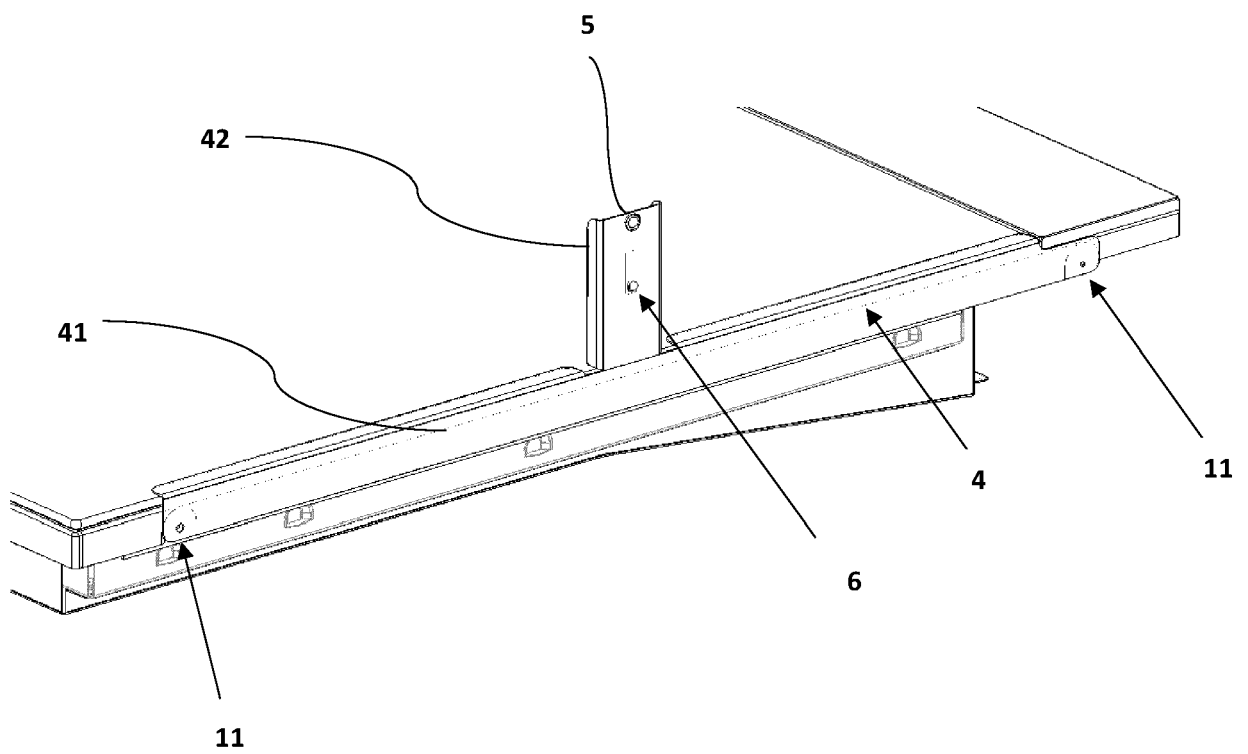


FIG.4

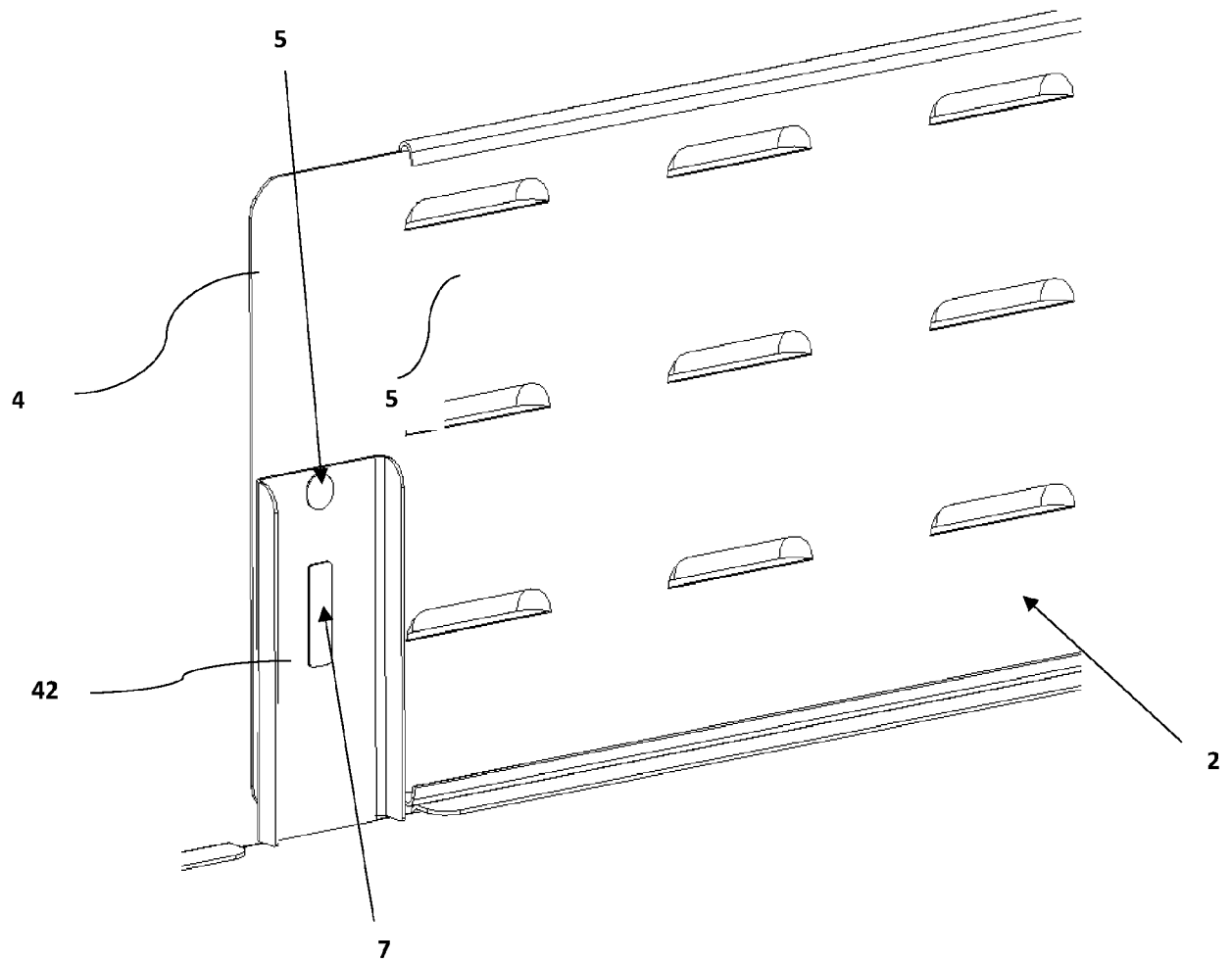


FIG.5

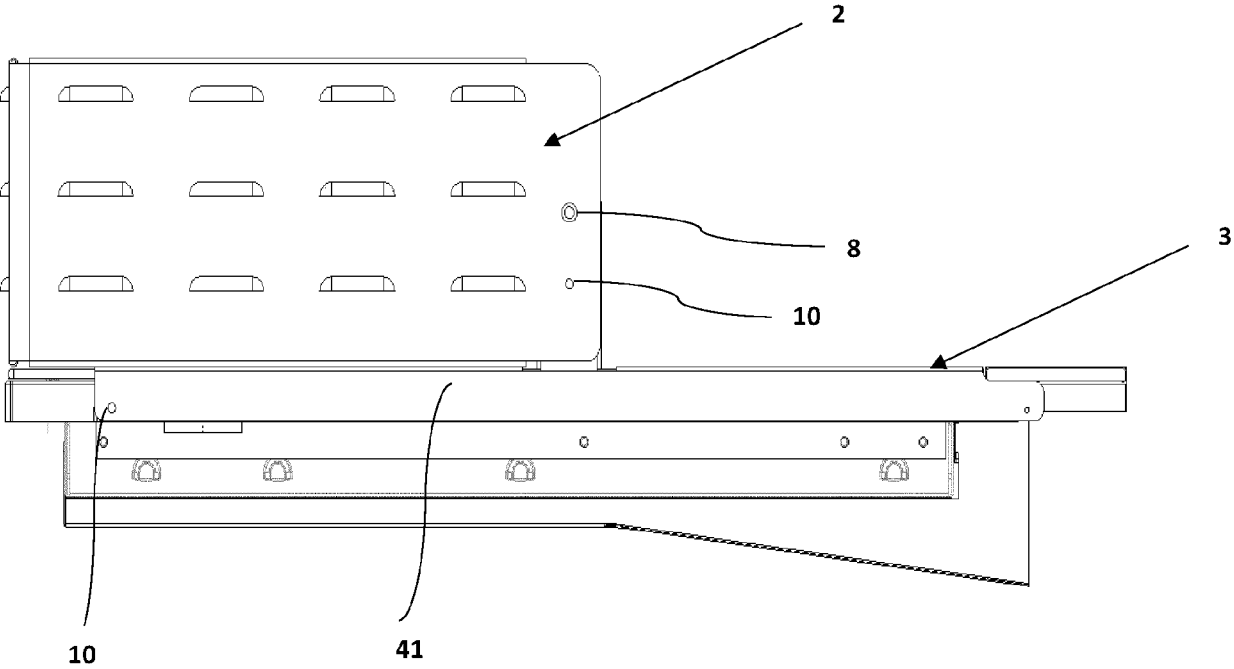


FIG. 6

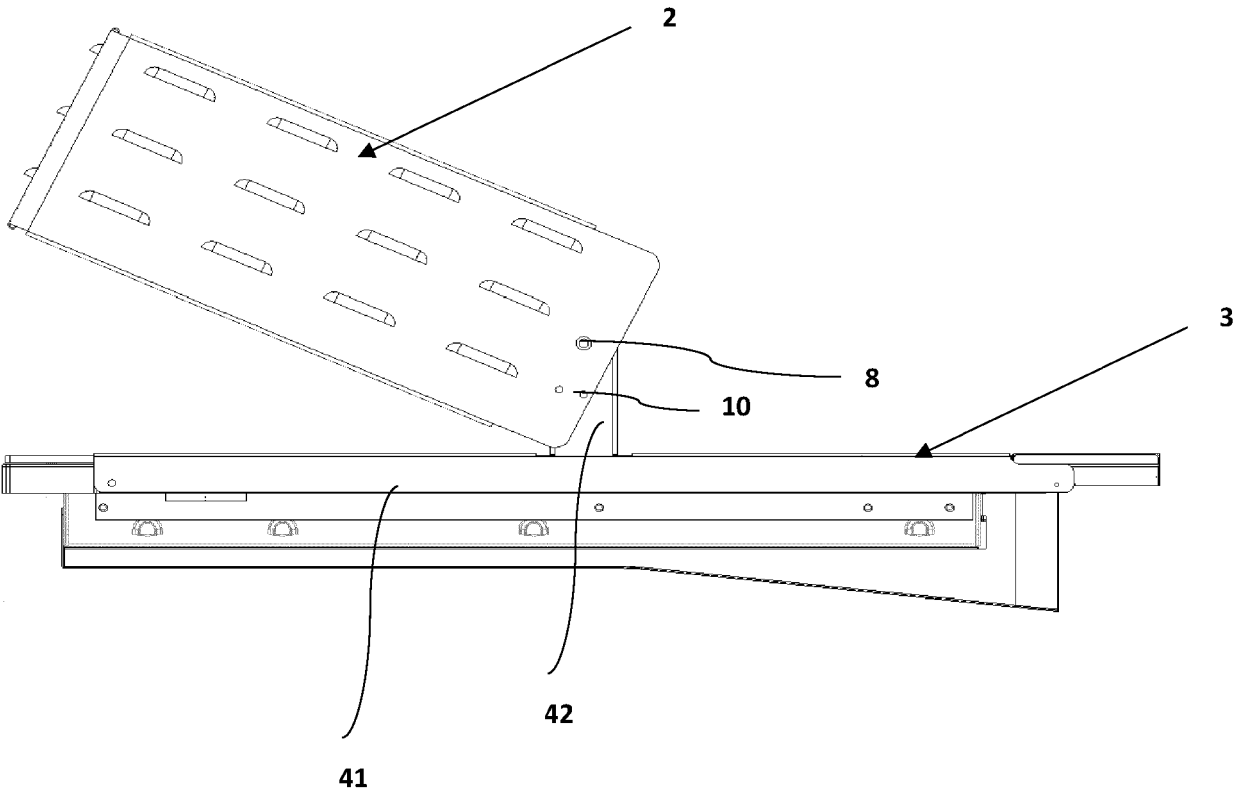


FIG. 7

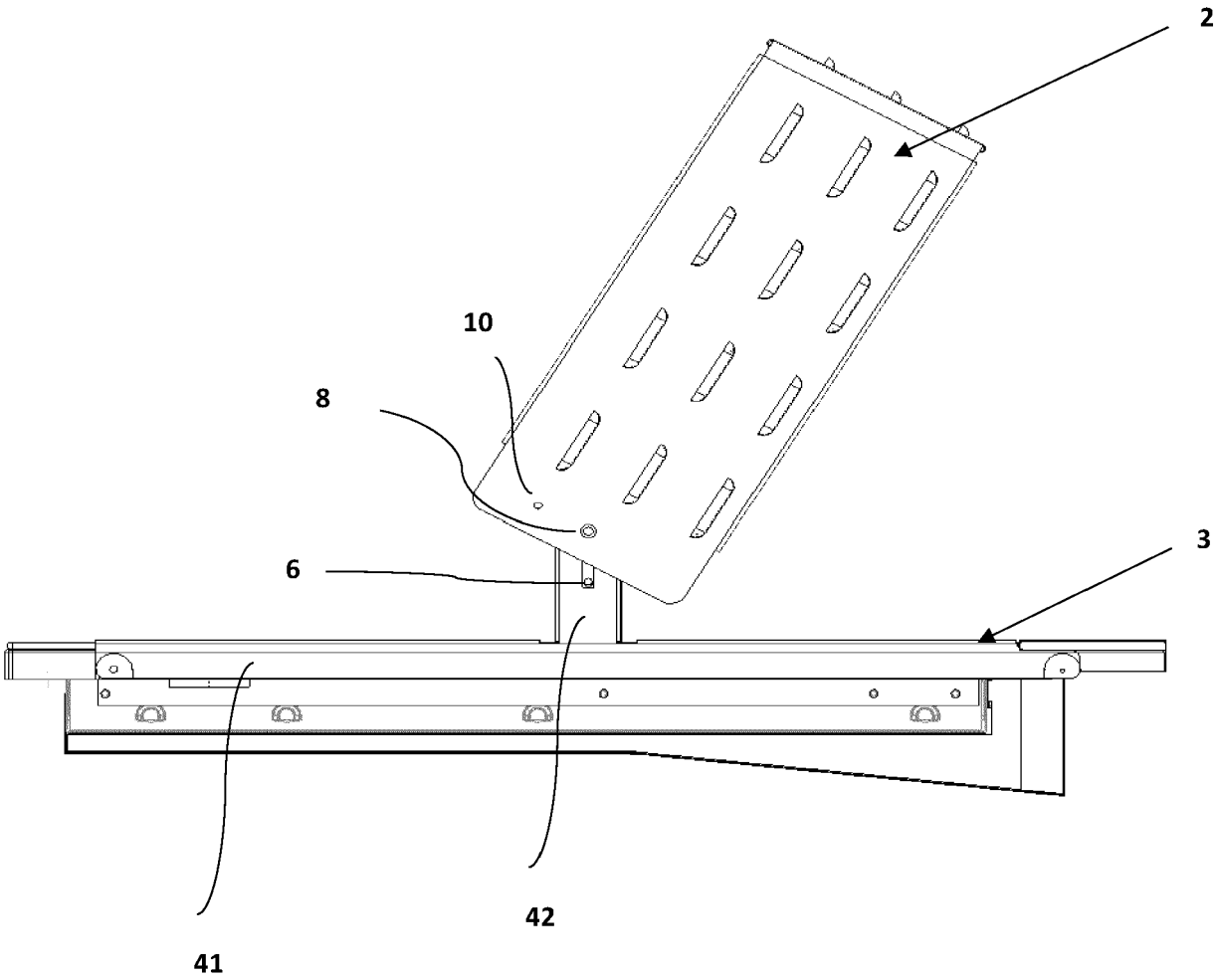


FIG. 8

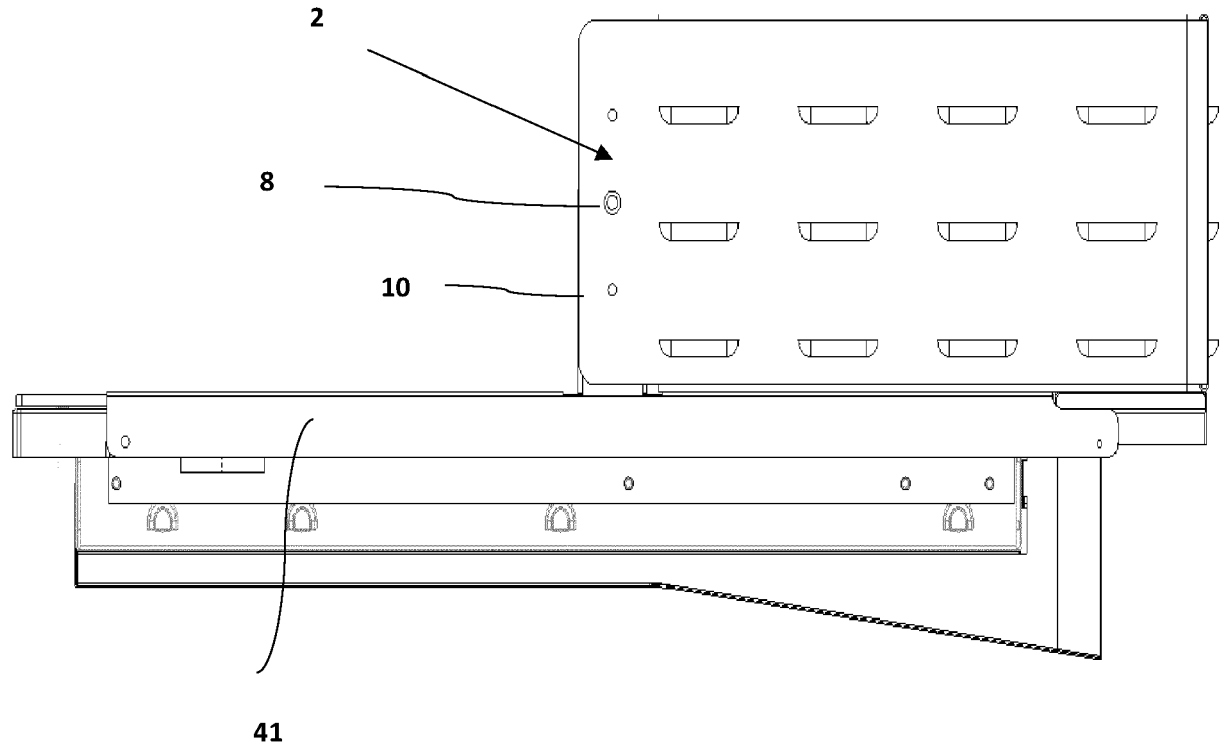


FIG. 9

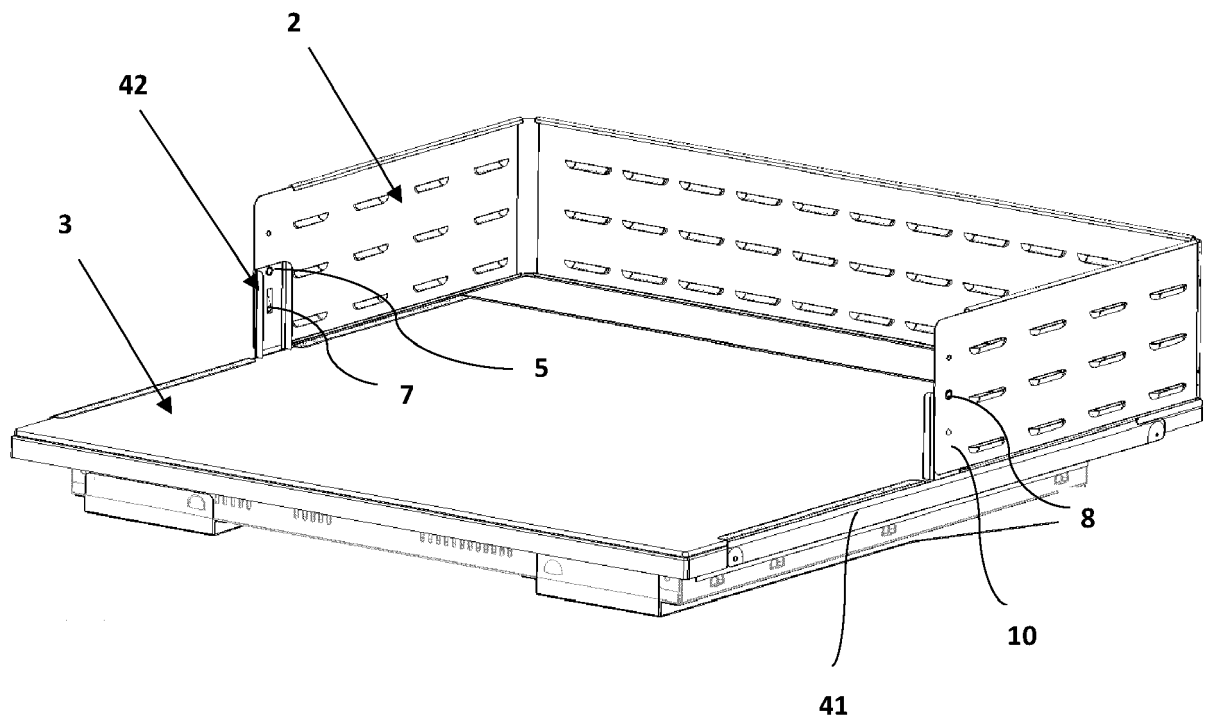


FIG. 10

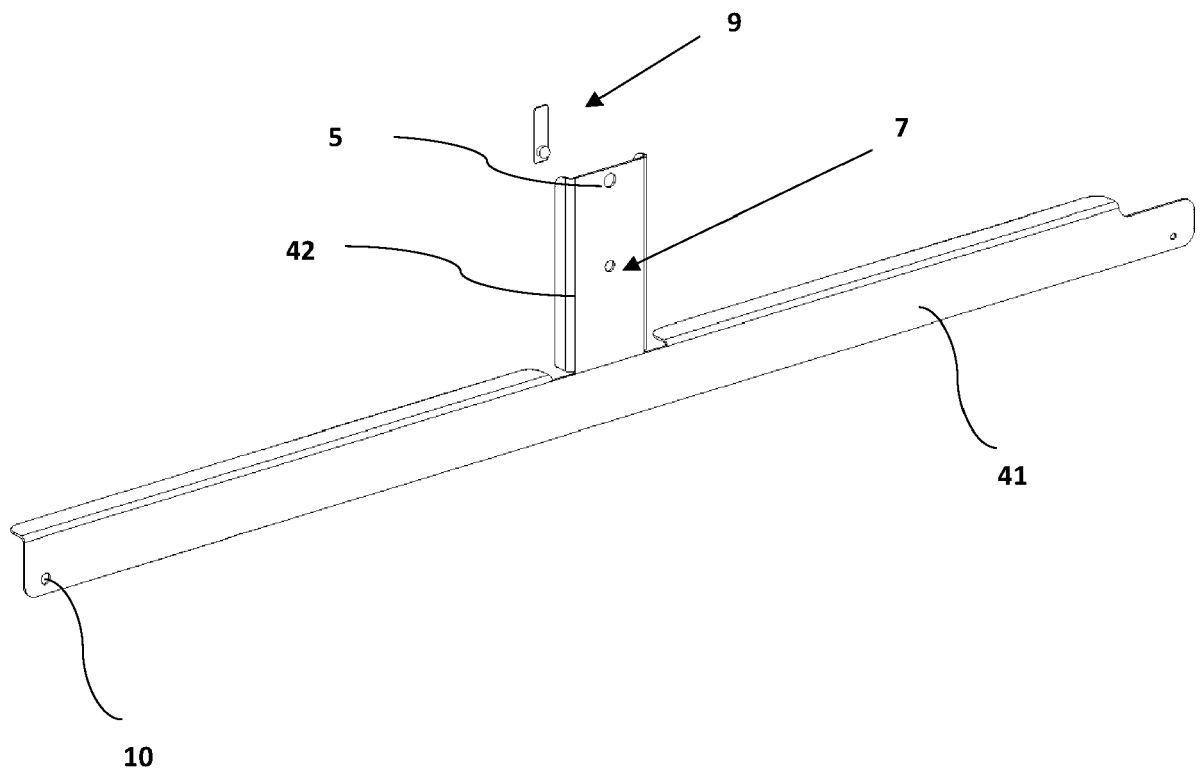


FIG. 11





## EUROPEAN SEARCH REPORT

Application Number

EP 23 18 8491

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DE 91 08 077 U1 (BOSCH-SIEMENS HAUSGERAETE GMBH) 12 September 1991 (1991-09-12)	1-11, 14, 15	INV. F24C15/36
Y	* the whole document *	13	
	-----		
X	EP 2 249 089 A2 (RAVIZZA RENATO [IT]) 10 November 2010 (2010-11-10)	1-12, 14, 15	
Y	* paragraphs [0001], [0012], [0018] - [0042]; figures 1, 2 *	13	
	-----		
X	DE 11 39 956 B (LARS ERIC FRIBERG) 22 November 1962 (1962-11-22)	1-12, 14, 15	TECHNICAL FIELDS SEARCHED (IPC)  F24C
Y	* the whole document *	13	
	-----		
X	FR 2 610 704 A1 (HALVICK VIVIANE [FR]; MERIAUX ROGER [FR]) 12 August 1988 (1988-08-12)	1-12, 15	
Y	* figures *	13	
	-----		
Y	US 5 758 636 A (BUTRIMAS VICTOR [CA] ET AL) 2 June 1998 (1998-06-02)	13	
	* figures *		
	-----		
The present search report has been drawn up for all claims			
Place of search <b>The Hague</b>		Date of completion of the search <b>20 December 2023</b>	Examiner <b>Verdoodt, Luk</b>
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

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ON EUROPEAN PATENT APPLICATION NO.**

EP 23 18 8491

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20-12-2023

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
<b>DE 9108077</b>	<b>U1</b>	<b>12-09-1991</b>	<b>NONE</b>
-----			
<b>EP 2249089</b>	<b>A2</b>	<b>10-11-2010</b>	<b>EP 2249089 A2</b>
			<b>10-11-2010</b>
		<b>IT TO20090058 U1</b>	<b>06-11-2010</b>
-----			
<b>DE 1139956</b>	<b>B</b>	<b>22-11-1962</b>	<b>NONE</b>
-----			
<b>FR 2610704</b>	<b>A1</b>	<b>12-08-1988</b>	<b>NONE</b>
-----			
<b>US 5758636</b>	<b>A</b>	<b>02-06-1998</b>	<b>CA 2187049 A1</b>
			<b>04-04-1997</b>
		<b>US 5758636 A</b>	<b>02-06-1998</b>
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**REFERENCES CITED IN THE DESCRIPTION**

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**Patent documents cited in the description**

- CA 2066861 [0003]