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(54) **Foldable egg-tray**

(57) The egg tray of this invention that was developed for freezers comprises two parts (1, 2) that have at least one egg insertion slot on their upper surfaces (7) and that can fold onto each other by pivoting with respect to a joint point; a pair of mounts (4, 4') that extend downwards from the opposing sides of both of the parts (1, 2). In the open

position of the egg tray mounts (4') are side to side and one of the internal edges (8) of the mounts (4') faces each other. The egg tray further comprises a "T" shaped protrusion (6) that extends outside from an internal edge (8); and a "T" shaped groove (5) on the other internal edge (8) such that the protrusion (6) can attach, and inside it the protrusion (6) can turn and move back and forth.

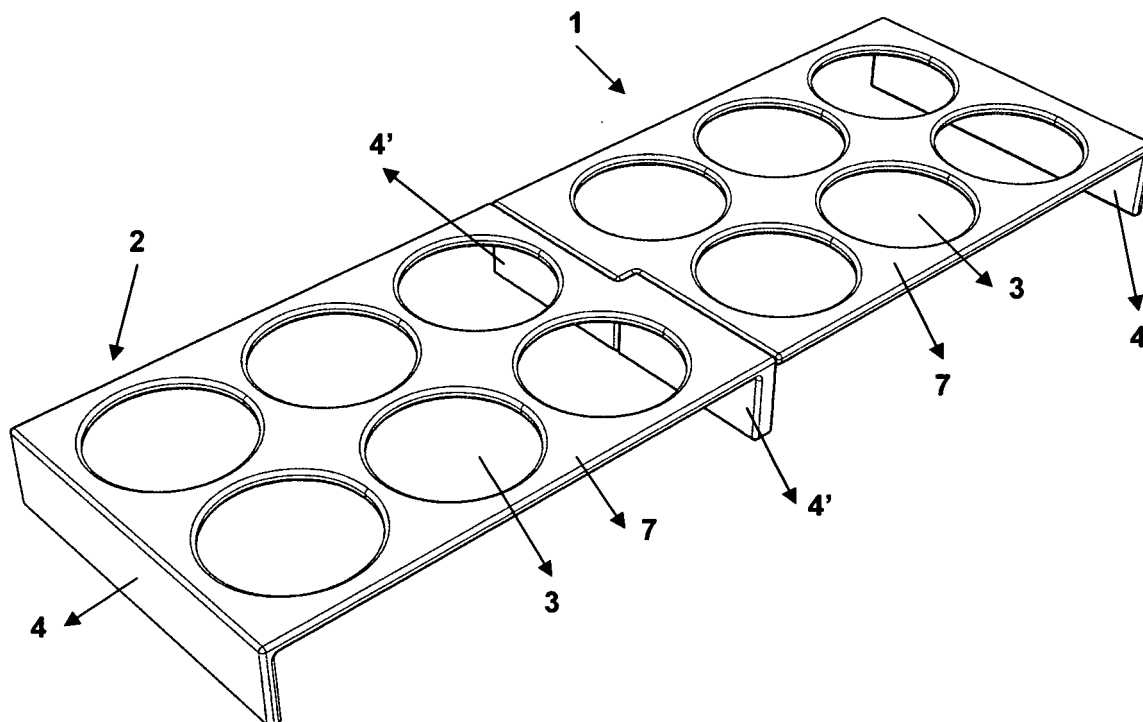


Figure – 1

Description

Field of the invention

[0001] This invention is related to egg trays which are used in white appliances such as refrigerators and freezers and that can be folded in order to save space.

Background of the invention

[0002] In white appliances like refrigerators and freezers which are used to store food products for a long time there are various types of egg trays. Because of the nature of the eggs, it is preferred by the users that egg trays are in an easily removable and cleanable position. Also due to the limited internal volume of the refrigerators, it is another important preferred feature that they save space by entering into each other when needed.

[0003] In the state of the art, an egg tray developed to meet the abovementioned features is disclosed in the published patent application no. KR0136597. In this application various types of egg trays that can be folded onto each other or that can enter into each other are explained. The foldable egg tray model is a model with two joints and two parts. The outer parts of the egg tray are folded onto each other by pivoting from the part that they join together with the part in between them. The length of this egg tray is halved when folded but the height of it is doubled. In other words, the foldable egg tray in the said application, while saving space in terms of usage space, does not save any usage volume.

[0004] The egg tray model in the said application that can enter into each other is not functional when there are eggs on it. For the two parts of the egg tray to be able to enter into each other, the eggs on both of the parts should be removed. And this creates a situation that is not practical at usage.

Brief description of the invention

[0005] In this invention, an egg tray that saves space by folding is described. The egg tray, of which details are given below, has a structure with two parts and one joint and when it is folded the usage area decreases. On the other hand, since the height of it remains the same, a saving is achieved in terms of usage volume. Since one part of the egg tray is closed by folding under the other part and while folding there is no contact with the eggs, the egg tray can be folded even when there are eggs on the upper part. To be able to do this, the egg tray should be taken out of its place and inserted into its place in the fridge after folding. As mentioned before, when the egg tray is folded the usable upper surface area decreases, yet since there is no change in the height and depth of it, it can be easily inserted into its current place in the refrigerator after folding. The manufacture and assembly of the egg tray is easy due to its simple geometric structure.

The Purpose of the Invention

[0006] The goal of this invention is to position a foldable egg tray that can be used in white appliances such as refrigerators and freezers.

[0007] Another goal of this invention is to position it such that when folded it can save space both in terms of usage area and usage volume.

[0008] Another goal of this invention is to make it possible that even when there are eggs on one of the parts of the egg tray, the other part can be folded without touching the eggs.

[0009] Another goal of the inventions is to provide an egg tray that can be easily manufactured and assembled.

Brief description of the figures

[0010] A sample egg tray of this invention is illustrated in the attached figures:

Figure 1 is the perspective view of the open position of the egg tray.

Figure 2 is the perspective view of the egg tray when being folded.

Figure 3 is the perspective view of the folded egg tray.

Figure 4 is the perspective view of a part of the egg tray.

Figure 5 is the perspective view of the other part of the egg tray.

Figure 6 is the perspective view of the disassembled egg-tray.

Figure 7 is the detailed perspective view of the groove.

[0011] In the figures, each part is given a reference number and their descriptions are given below.

Parts of the egg tray (1, 2)

Slot (3)

Mounts (4, 4')

Groove (5)

Protrusion (6)

Upper surface (7)

Internal edge (8)

Set (9)

Detailed description of the invention

[0012] The egg tray of which the disassembled state is shown in Figures 1-3 has a structure with two parts (1, 2) and these parts (1, 2) have the ability of folding onto each other by pivoting with respect to a joint point. Both parts (1, 2) of the egg tray comprise at least one egg insertion slot (3) on their upper surface (7) and a pair of mounts (4, 4') that extends downwards from their opposing two sides. As shown in Figure 1, in the open position of the egg tray, a pair of mounts (4') comes together and

the internal edges (8) of these mounts face each other. Said mounts (4') are located in certain places on the edges of the parts (1, 2) and when their internal edges (8) come side to side both parts (1, 2) of the egg tray complete each other. In the open position of the egg tray, the mount (4) of each part (1, 2) is located on the outside, far from each other.

[0013] As shown in Figure 2, while the parts (1, 2) are being folded, the joint between the two adjacent mounts (4') is utilized. In Figure 3, the folded position of the egg tray is shown. In this position, the outer mounts (4) come together and a mount (4) sits on the bottom (bottom of an upper surface (7)) of one of the two parts (1, 2). In this position by the mounts (4) coming together, there is no height difference between the open and folded positions of the egg tray except for the thickness of the upper surface (7). Since it is a very small measure compared to the height of the mounts (4, 4'), the thickness of the upper surface (7) does not create a significant height difference. In the open and folded positions of the egg tray, the heights of the mounts (4, 4') are held same in order to make it possible that the upper surface (7) is parallel to the surface which the egg tray sits.

[0014] In Figures 4 and 5 the parts (1, 2) of the egg tray are shown separately. In the open position of the egg tray, in both parts (1, 2), on the facing internal edges (8) of the adjacent mounts (4') there are protrusions (6) and grooves (5) that can enter into each other.

[0015] Said protrusion (6) has a "T" form that extends outside from the internal edge (8). In other words, the protrusion has a "T" shaped form such that a bar extends outside from the internal edge (8) and the end of this bar extends towards each side.

[0016] Figure 7 provides the detailed perspective view of the said groove (5). The groove (5) is positioned such that it only allows the protrusion (6) to enter and exit at certain angles. The placement in the Figure 6 can be given as an example of this. For the parts (1, 2) to be able to be attached, the protrusion (6) should enter the groove (5) at a certain angle. After the attachment of the parts (1, 2) they can be pivoted with respect to each other, and in this position the protrusion (6) does not detach from the groove (5) but can move back and forth for a certain amount inside the groove (5). For the protrusion (6) to be able to be detached from the groove (5), the parts (1, 2) should be brought to their initial angles where they have been attached together at the first place. At this angle, the protrusion (6) is taken out from the groove (5) by pulling and the parts (1, 2) are detached from each other.

[0017] The groove (5) which is shown in detail in Figure 7 was shaped as a "T" form such that inside the protrusion (6) can enter, turn and move back and forth. On both sides of the bottom of the groove (5) there is a pair of sets (9) that allows the protrusion (6) to enter and exit only at one angle. After the protrusion (6) is inserted into the groove (5), when tried to be removed from the groove (5) by turning, at least one of the ends of the protrusion

(6) that extends to sides touches at least one of the said sets (9) and can not detach. Since the edge of the groove (5) that is close to the upper surface (7) is closed, the protrusion (6) can not be removed from the upper part.

[0018] In the preferred embodiment of the invention, when the mounts (4, 4') on which the groove (5) and the protrusion (6) are located come side to side, parts (1, 2) complete each other. In other words, in the open position of the egg tray when the mounts (4, 4') come side to side, a structure is positioned without any space between the parts (1, 2).

Claims

1. An egg tray for freezers comprising two parts (1, 2) that have at least one egg insertion slot on their upper surfaces (7) and that can fold onto each other by pivoting with respect to a joint point; a pair of mounts (4, 4') that extend downwards from the opposing sides of both of the parts (1, 2) which is **characterized in that** said mounts (4, 4') are of the same height and in the open position both mounts (4') come side to side, one internal edge (8) of these mounts (4') face each other; it further comprises a "T" shaped protrusion (6) positioned by extending the end of a bar extending outside from an internal edge (8) to sides and a "T" shaped groove (5) on the other internal edge (8) such that the protrusion (6) can attach, and inside it the protrusion (6) can turn and move back and forth.
2. An egg tray according to Claim 1, which is **characterized in that** there is a pair of sets (9) on both sides of the bottom of the groove (5) that allow the protrusion (6) to enter and exit into / from the groove (5) only from bottom and only at a certain angle.
3. An egg tray according to Claim 1, which is **characterized in that** the edge of the groove (5) that is close to the upper surface (7) is closed.
4. An egg tray according to Claim 1, which is **characterized in that** when the internal edges (8) come side to side, the two parts (1, 2) of the egg tray is positioned to complete each other.
5. An egg tray according to Claim 1, which is **characterized in that** when the egg tray is folded the outer mounts (4) come to the same side and one of the mounts (4) sits on the bottom of an upper surface (7).
6. An egg tray according to Claim 1, which is **characterized in that**, in the open position of the egg tray, the parts (1, 2) complete each other such that no space will remain between them.

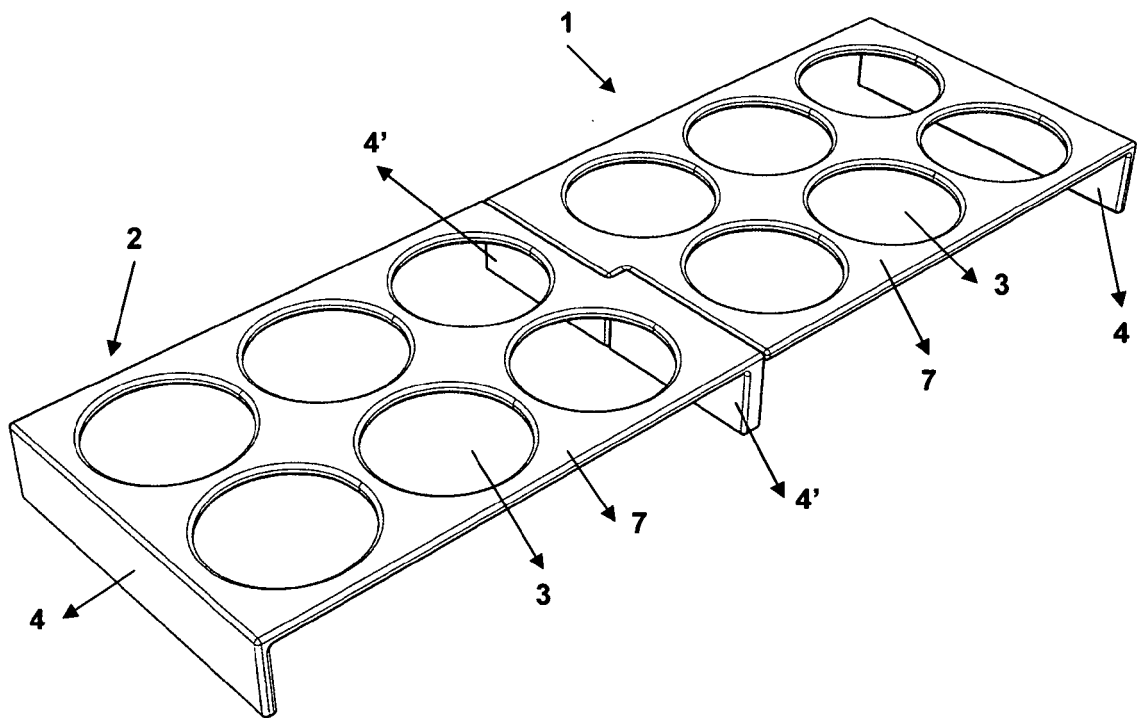


Figure - 1

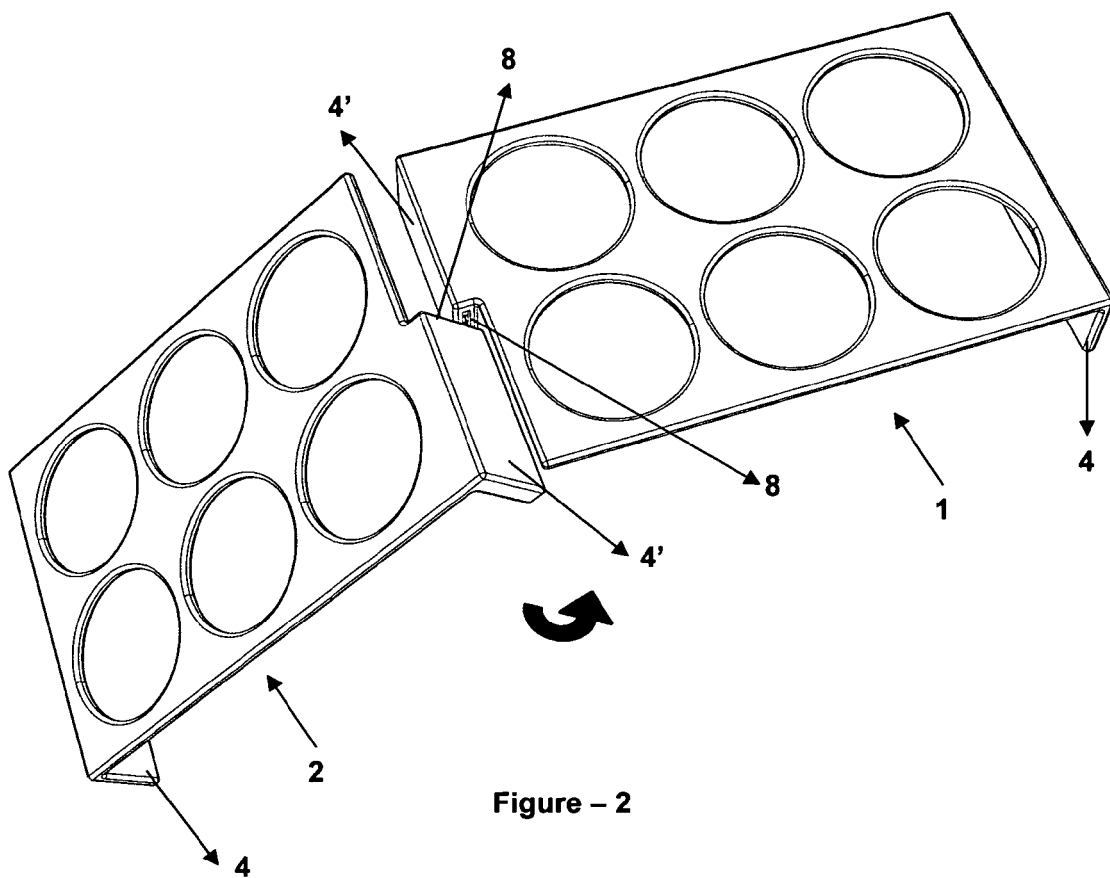


Figure - 2

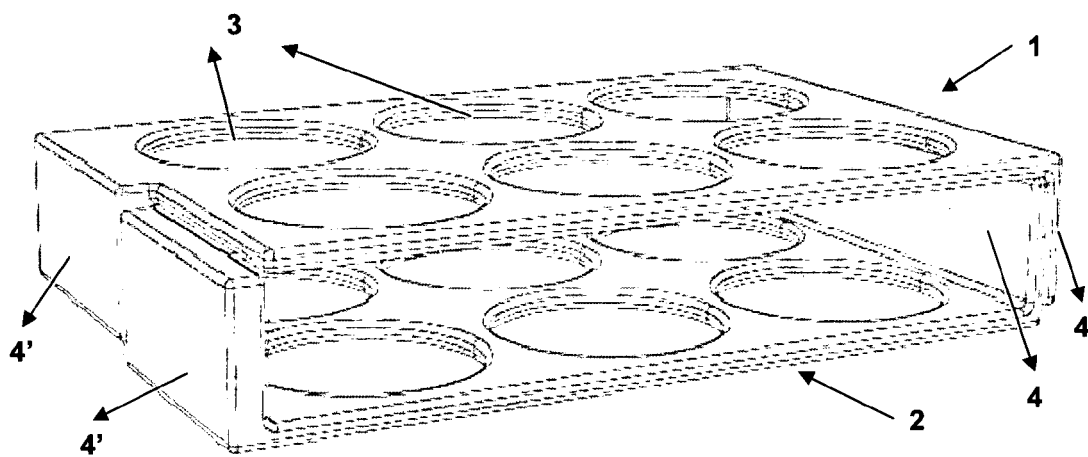


Figure - 3

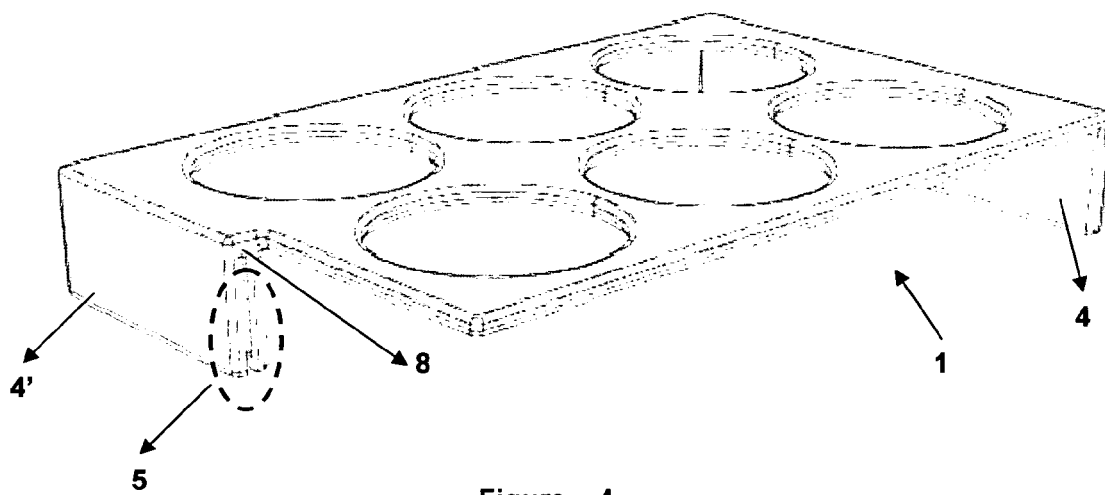


Figure - 4

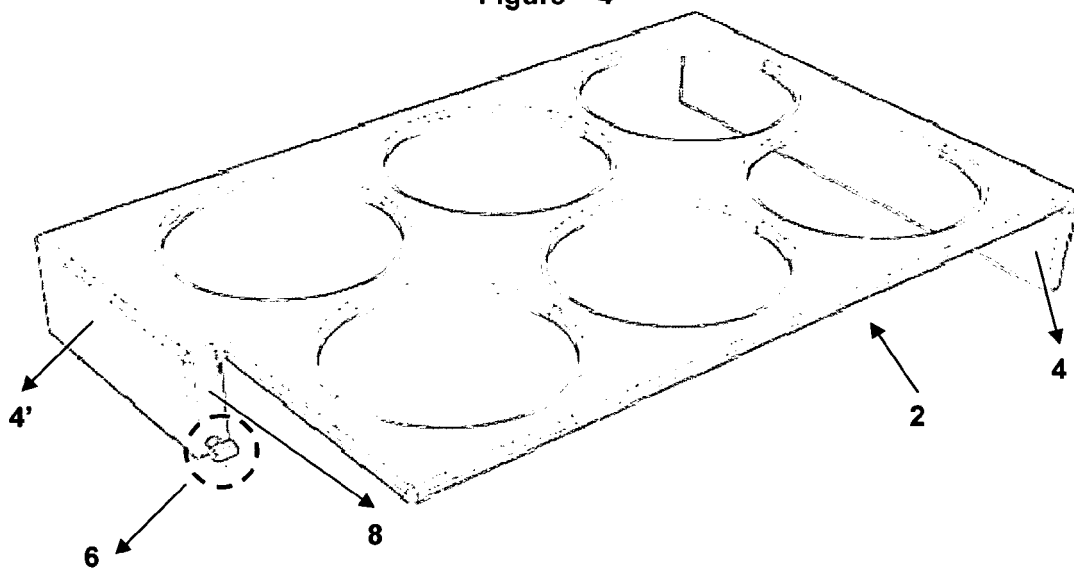


Figure - 5

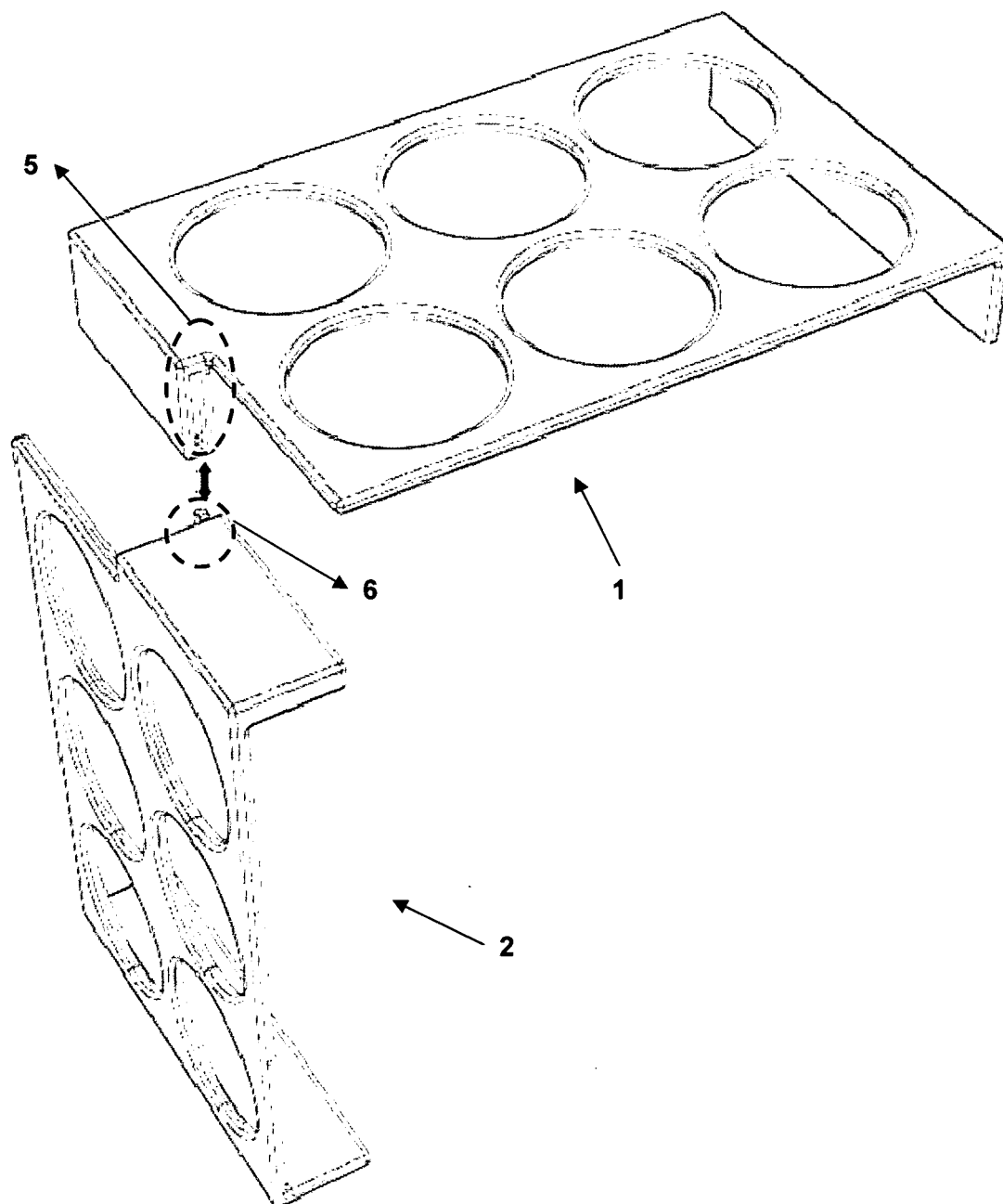


Figure – 6

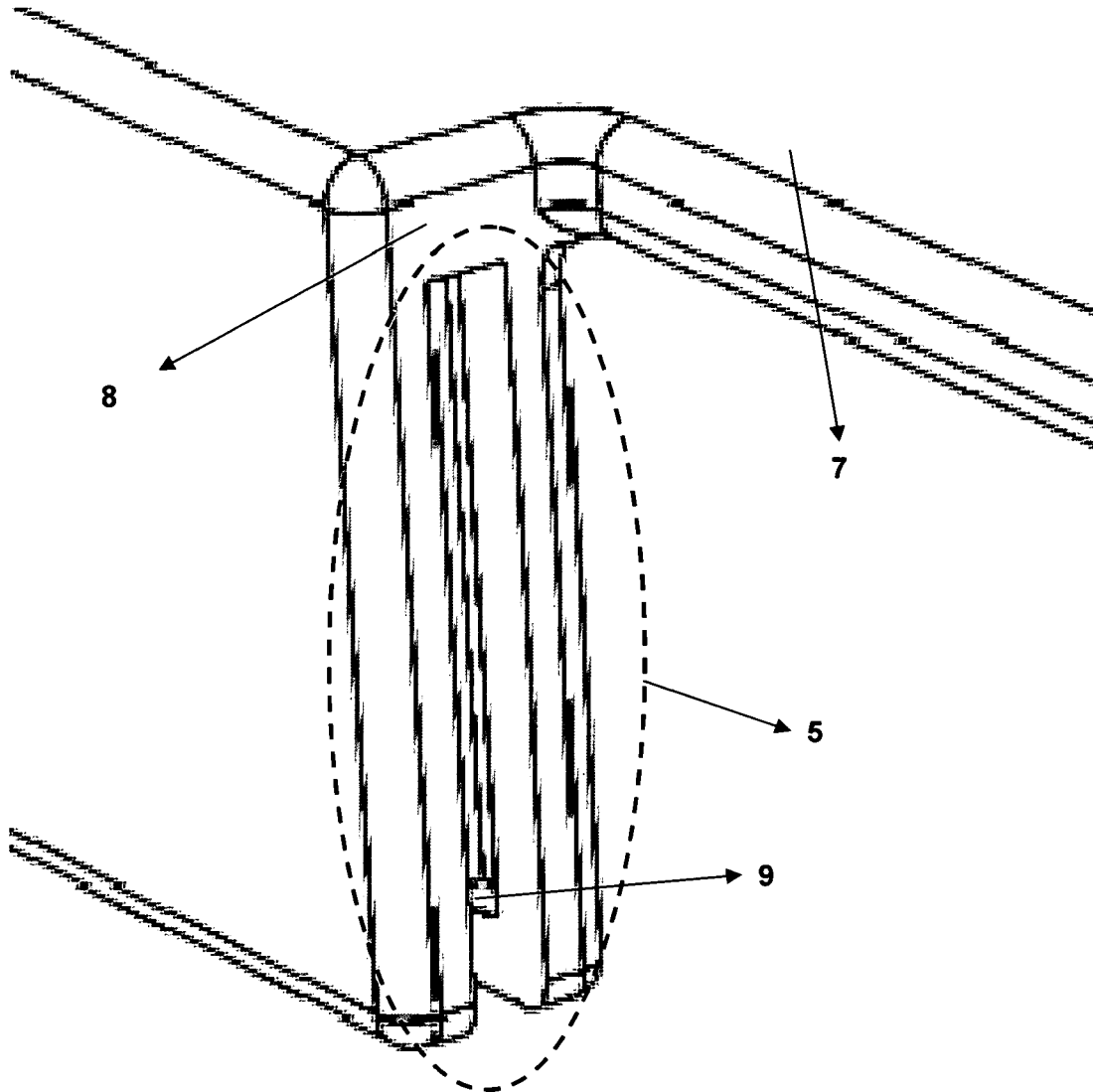


Figure – 7



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 08 10 2141

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
D,A	KR 0 136 597 Y1 (LG ELECTRONICS INC [KR]) 20 March 1999 (1999-03-20) * figures 1-4 *	1	INV. F25D25/00
A	WO 2007/110445 A (ARCELIK ANONIM SIRKETI [TR]; OZDEMIR AKIN [TR]; YAVUZ RESUL [TR]; IYIG) 4 October 2007 (2007-10-04) * the whole document *	1	
A	TR 9 901 775 A2 (VESTEL BEYAZ ESYA SAN VE TIC A [TR]) 21 February 2001 (2001-02-21) * figures 1-3 *	1	
A	JP 05 071863 A (MATSUSHITA REFRIGERATION) 23 March 1993 (1993-03-23) * abstract *	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			F25D
Place of search		Date of completion of the search	Examiner
Munich		7 July 2008	Jessen, Flemming
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EPO FORM 1503 03.82 (P04C01)

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

EP 08 10 2141

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
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07-07-2008

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KR 0136597	Y1	20-03-1999	NONE	

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REFERENCES CITED IN THE DESCRIPTION

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