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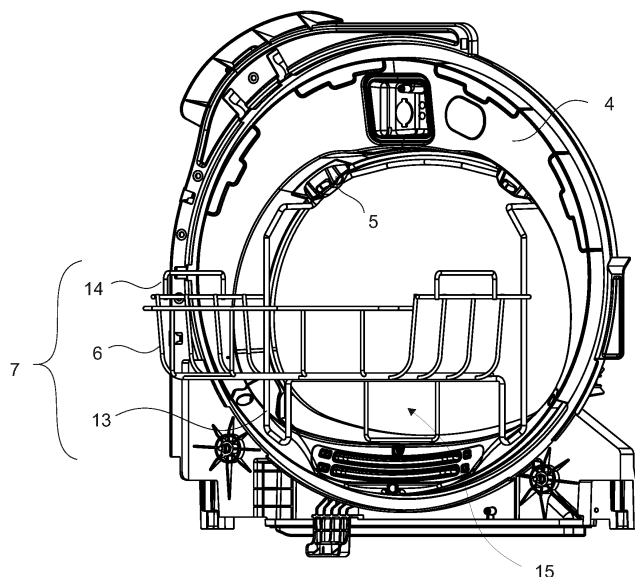
This application was filed on 07-06-2018 as a divisional application to the application mentioned under INID code 62.

(54) **A LAUNDRY DRYER COMPRISING A CARRIER**

(57) The present invention relates to a laundry dryer (1) comprising a drum (2) wherein the items to be dried are placed, a frame (4) located at the front side of the drum (2), having a loading port (3) that enables the laundry to be loaded into the drum (2) and to be unloaded

therefrom, at least one connection member (5) that is located at the side of the frame (4) facing the drum (2) and a carrier (7) that is mounted to the connection member (5) to prevent the deformation of the items to be dried.

Fig.2



Description

[0001] The present invention relates to a laundry dryer comprising a carrier wherein items to be washed are placed.

[0002] In laundry dryers, delicate items are damaged during the rotation of the drum in the drying process and items such as shoes may damage the laundry dryer during the drying process. For this purpose, carriers that can be mounted to/dismounted from inside the laundry dryer are known in the state of the art. However, in the state of the art while these carriers are mounted to the frame, the access of the user into the drum, especially under the carrier becomes difficult.

[0003] In the state of the art European Patent Application No. EP1690973 and Japanese Patent Application No. JP9220399, a carrier is disclosed, that can be detachably mounted to the frame in the laundry dryers.

[0004] In the state of the art United States Patent Application No. US2007119071, a carrier is disclosed, that can be detachably mounted to the lower portion of the frame in the laundry dryers. In the document, it is explained that in order to mount the carrier, first the filter has to be dismantled.

[0005] The aim of the present invention is the realization of a laundry dryer comprising a carrier that provides ease of utilization.

[0006] The laundry dryer realized in order to attain the aim of the present invention, explicated in the first claim and the respective claims thereof comprises a drum, a frame having a loading port, a connection member mounted onto the frame and a carrier that does not rotate together with the drum, having a body wherein items produced from materials such as satin, silk, etc. that are desired not to be damaged during the rotation of the drum.

[0007] In the laundry dryer of the present invention, the carrier comprises an U-shaped protrusion at its ends which hung over the connection member and the connection member is positioned on the frame at the level of the upper half of the drum wherein the connection member having a housing facing towards outside of the drum from the loading opening and suitable for accommodation of the protrusion.

[0008] The connection member is positioned above the rotational axis of the drum. Housing arranged on the connection member having a recess shape that faces outside of the drum and the U-shaped protrusion is seated into said housing for mounting the carrier on the connection member. When desired to be used, user aligns the carrier with respect to the connection member such that the protrusion is inserted and retained in the housing. Thus, housing carries and supports the carrier in a manner that the connection member withstands heavy loads imposed thereon and facilitates the placing of heavy items upon the carrier. When delicate clothes or shoes are not desired to be dried, the carrier is dismantled from the connection member by simply removing the protrusion

from the housing and taken out of the laundry dryer.

[0009] In an embodiment of the present invention, connection member is positioned onto the frame such that it is aligned with the highest portion of the loading port. Hence the carrier can be easily settled on the connection member.

[0010] In an embodiment of the present invention, a pair of connection members are located at the top right and top left portion of the side of the frame facing the drum. Hence the carrier is stably and securely supported by the connection members.

[0011] In an embodiment of the present invention, when the carrier is hung over the connection member, the user may reach the base of the drum.

[0012] In an embodiment of the present invention, the connection member is mounted to the frame so as to allow the carrier hung over the connection member to sway back and forth. Thus, the user reaches the portion of the drum remaining under the carrier body by moving the carrier.

[0013] In an embodiment of the present invention, the laundry dryer comprises an opening that provides to reach the base of the drum from under the carrier body. Thus, the user can reach the laundry located at the lower portion of the drum without contacting the carrier while the carrier is hung over the connection member.

[0014] In an embodiment of the present invention, the carrier is produced by twisting and bending a wire. Thus, the carrier is easily shaped as desired.

[0015] In an embodiment of the present invention, the carrier is of perforated structure. Thus, the surfaces of the items to be dried are provided to contact more hot air.

[0016] In an embodiment of the present invention, when the filter placed to the frame in order to retain particles such as lint, dust, etc. in the air in the drum is desired to be dislocated, the carrier does not prevent this action from being performed. The user can remove the filter by pushing the carrier to clean it, then mount it to its place.

[0017] In an embodiment of the present invention, the connection member is produced as integrated with the frame. Thus, production errors and waste of time are eliminated, that may occur during the assembly if these components are not produced in an integrated manner.

[0018] In an embodiment of the present invention, the carrier comprises a foot that extends downwards from the body, providing the carrier to bear against the frame to be supported.

[0019] In an embodiment of the present invention, the carrier comprises at least one handle that provides ease of utilization while the carrier is being mounted to the connection member and while it is carried by the user.

[0020] The model embodiments relating to a laundry dryer realized in order to attain the aim of the present invention are illustrated in the attached figures, where:

Figure 1 - is the perspective view of a laundry dryer.

Figure 2 - is the rear perspective view of a frame, a

connection member and a carrier in an embodiment of the present invention.

Figure 3 - is the sideways view of a frame, a connection member and a carrier while the carrier is in the first position in an embodiment of the present invention.

Figure 4 - is the sideways view of a frame, a connection member and a carrier while the carrier is in the second position in an embodiment of the present invention.

Figure 5 - is the detailed view of a connection member and a protrusion.

Figure 6 - is the perspective view of a connection member.

[0021] The elements illustrated in the figures are numbered as follows:

1. Laundry dryer
2. Drum
3. Loading port
4. Frame
5. Connection member
6. Body
7. Carrier
8. Stopper
9. Housing
10. Protrusion
11. Extension
12. Filter
13. Foot
14. Handle
15. Opening

[0022] The laundry dryer (1) comprises

- a drum (2) wherein the items to be dried are placed,
- a frame (4) located at the front side of the drum (2), having a loading port (3) that enables the laundry to

be loaded into the drum (2) and to be unloaded therefrom,

- at least one connection member (5) that is located at the side of the frame (4) facing the drum (2) and aligned with the upper half of the drum (2) over the frame (4)
- a carrier (7) that is detachably mounted to the connection member (5), having a body (6) extending into the drum (2), whereon the items to be dried are placed.

[0023] The laundry dryer (1) of the present invention comprising a housing (9) arranged on the connection member (5) wherein the housing (9) configured as a recess facing towards outside of the drum (2) and the carrier (7) having a U-shaped protrusion (10) suitable for being placed into the housing (9). Housing (9) is formed as a recess on the connection member (5) such that its mouth faces outside of the drum (2) and receives the protrusion (10) when the carrier (7) is placed into the drum (2). When the user wants to dry delicate items in the laundry dryer (1), he/she inserts the carrier (7) into the drum (2) from the loading port (3), mounts the carrier (7) to the connection member (5) by fitting the U-shaped protrusion (10) into the housing (9) and puts the delicate laundry into the body (6) of the carrier (7). Housing (9) defining a horizontal cavity facing outward from the loading port (3) provides user to quickly and easily align carrier (7) with the connection member (5). Thus, the carrier (7) is provided to be easily mounted to/dismounted from the connection member (5).

[0024] In an embodiment of the present invention, connection member (5) located at the side of the frame (4) facing the drum (2) so as to be aligned with the highest portion of the loading port (3). The connection member (5) arranged at the top of the side of the frame (4) facing the drum (2). Hence user can easily access the connection member (5) and insert the protrusion (10) into the housing (9).

[0025] In an embodiment of the present invention, two connection members (5) located at the side of the frame (4) facing the drum (2) so as to be remain on both sides of the vertical symmetry axis of the loading port (3). Thus, connection members (5) accommodate the load on the carrier (7) in a distributed manner and stably support the carrier (7).

[0026] In an embodiment of the present invention, while the carrier (7) is in the position of being hung over the connection member (5), it is allowed to access the portion of the drum (2) remaining under the body (6) of the carrier (7). Thus, the user can reach every point in the drum (2) when the carrier (7) is mounted.

[0027] In an embodiment of the present invention, when a force is applied to the carrier (7) while it is in the position of being hung over the connection member (5), it is allowed to access the portion of the drum (2) remain-

ing under the body (6) of the carrier (7).

[0028] In another embodiment of the present invention, the laundry dryer (1) comprises an opening (15) arranged so as to allow the user to access at least partially inside the drum (2) through between the base of the carrier (7) and the side of the frame (4) facing the loading port (3). Thus, the user can reach the base of the drum (2) without applying force onto the carrier (7) when the carrier (7) is in the hanging position.

[0029] In an embodiment of the present invention, the carrier (7) is produced by shaping a wire. Thus, the production cost of the carrier (7) is decreased.

[0030] In an embodiment of the present invention, the carrier (7) is of perforated structure. Thus, the items in the carrier (7) contact more with air.

[0031] In an embodiment of the present invention, the carrier (7) comprises an extension (11) that provides the body (6) to be kept spaced apart from the loading port (3) in the drum (2) by extending from the body (6) towards the connection member (5). Thus, the items in the carrier (7) are provided to be more efficiently dried (Figure 3).

[0032] In an embodiment of the present invention, the laundry dryer (1) comprises a filter (12) that is placed to the side of the frame (4) facing the loading port (3). In this embodiment, when moved, the carrier (7) allows the mounting/dismounting of the filter (12). Thus, the user can clean the filter (12) when the carrier (7) is mounted into the laundry dryer (1) (Figure 1).

[0033] In an embodiment of the present invention, the connection member (5) is produced as one piece with the frame (4). Thus, additional costs that may arise in terms of assembly are prevented.

[0034] In an embodiment of the present invention, the carrier (7) comprises at least one foot (13) that bears against the side of the frame (4) facing the loading port (3) by extending from the body (6) towards the frame (4). Thus, the carrier (7) is provided to be properly supported during the drying process (Figure 2).

[0035] In an embodiment of the present invention, the carrier (7) comprises at least one handle (14) on the body (6). Thus, the carrier (7) is effectively grasped by the user (Figure 2).

[0036] In the laundry dryer (1) of the present invention, with the carrier (7) being hung over the connection member (5) disposed at the upper half of the frame (4), loading and unloading processes can be performed while the carrier (7) is mounted into the laundry dryer (1), thus providing ease of utilization.

[0037] It is to be understood that the present invention is not limited to the embodiments disclosed above and a person skilled in the art can easily introduce different embodiments. These should be considered within the scope of the protection postulated by the claims of the present invention.

Claims

1. A laundry dryer (1) comprising

- a drum (2) wherein the items to be dried are placed,
- a frame (4) located at the front side of the drum (2), having a loading port (3) that enables the laundry to be loaded into the drum (2) and to be unloaded therefrom,
- at least one connection member (5) that is located at the side of the frame (4) facing the drum (2) and aligned with the upper half of the drum (2) over the frame (4)
- a carrier (7) that is detachably mounted to the connection member (5), having a body (6) extending into the drum (2), whereon the items to be dried are placed.

characterized by

- a housing (9) arranged on the connection member (5) wherein the housing (9) configured as a recess facing towards outside of the drum (2) and
- the carrier (7) having a U-shaped protrusion (10) suitable for being placed into the housing (9).

2. A laundry dryer (1) as in Claim 1, **characterized by** the connection member (5) located at the side of the frame (4) facing the drum (2) so as to be aligned with the highest portion of the loading port (3).

3. A laundry dryer (1) as in Claim 1, **characterized by** two connection members (5) located at the side of the frame (4) facing the drum (2) so as to be remain on both sides of the vertical symmetry axis of the loading port (3).

4. A laundry dryer (1) as in Claim 1, **characterized by** the carrier (7) that allows to access the portion of the drum (2) remaining under the body (6) thereof, while being hung over the connection member (5).

5. A laundry dryer (1) as in any one of the claims above, **characterized by** the carrier (7) that allows to access the portion of the drum (2) remaining under the body (6) thereof by moving when a force is applied thereon while being hung over the connection member (5).

6. A laundry dryer (1) as in any one of the above claims, **characterized by** an opening (15) that is arranged so as to allow the user to access inside the drum (2) through between the base of the body (6) and the side of the frame (4) facing the loading port (3).

7. A laundry dryer (1) as in any one of the above Claims,
characterized by the carrier (7) produced from wire.
8. A laundry dryer (1) as in any one of the above Claims,
characterized by the carrier (7) that is of perforated
structure. 5
9. A laundry dryer (1) as in any one of the above claims,
characterized by the carrier (7) that has an extension (11) that provides the body (6) to be kept spaced
apart from the loading port (3) in the drum (2) by
extending from the body (6) towards the connection
member (5). 10
10. A laundry dryer (1) as in any one of the above claims, 15
characterized by a filter (12) that is disposed on the
side of the frame (4) facing the loading port (3) and
the carrier (7) that allows the filter (12) to be mounted/dismounted when it is moved.
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11. A laundry dryer (1) as in any one of the above Claims,
characterized by the connection member (5) produced as one piece together with the frame (4).
12. A laundry dryer (1) as in any one of the above claims, 25
characterized by the carrier (7) comprising at least
one foot (13) that bears against the side of the frame
(4) facing the loading port (3) by extending from the
body (6) towards the frame (4).
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13. A laundry dryer (1) as in any one of the above Claims,
characterized by the carrier (7) comprising at least
one handle (14) disposed on the body (6), that is
used for carrying the body (6).
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Fig.1

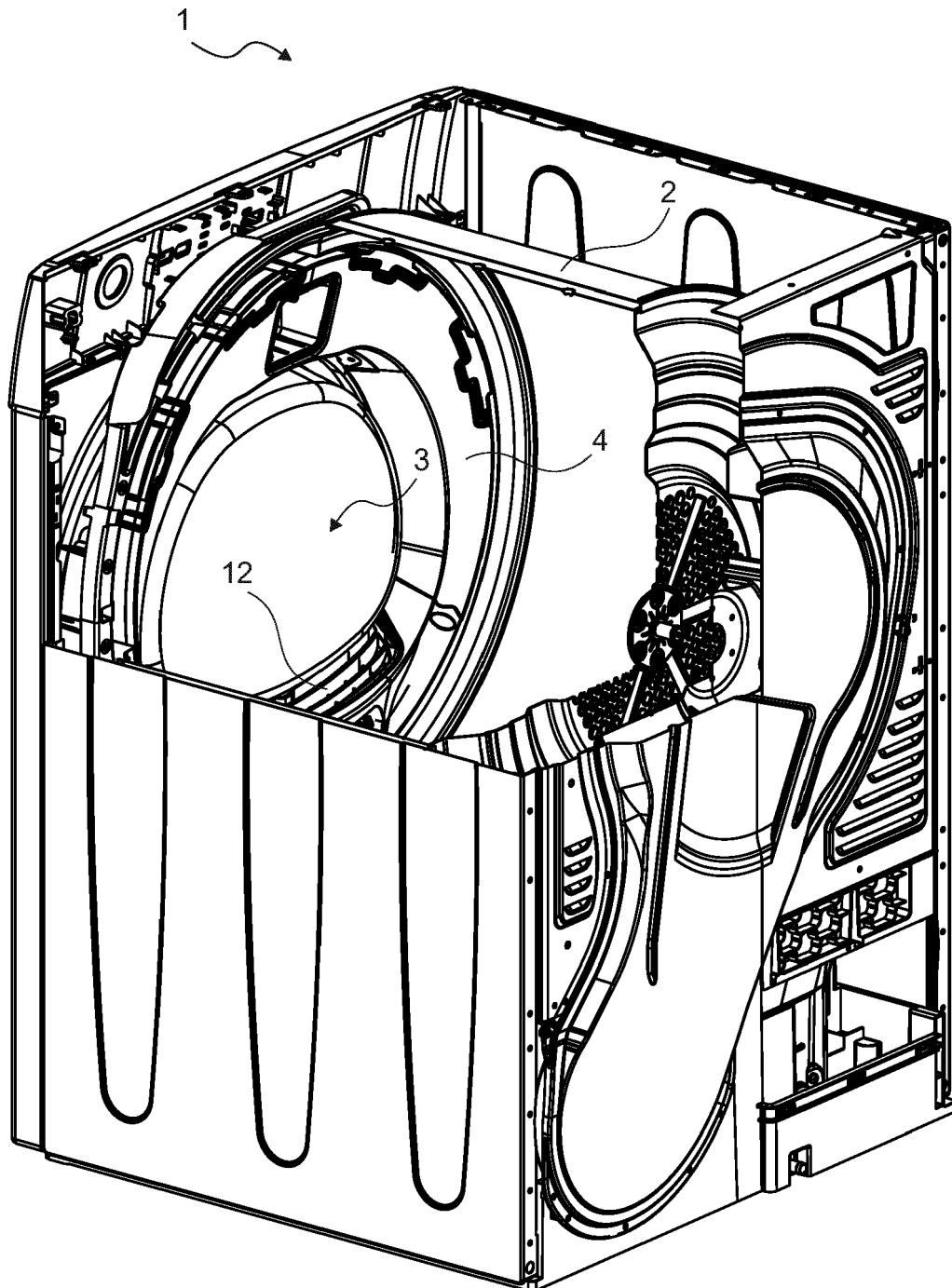


Fig.2

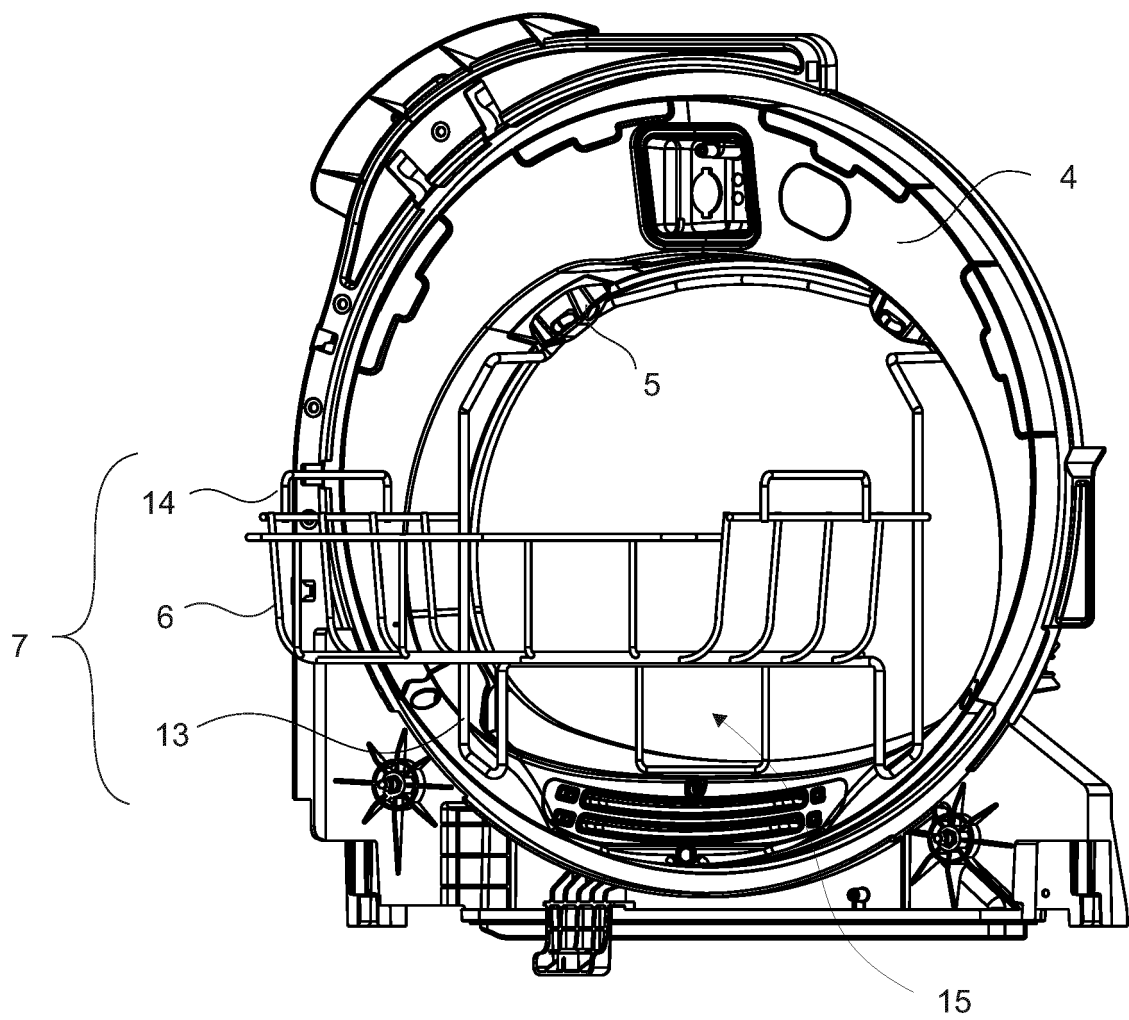


Fig.3

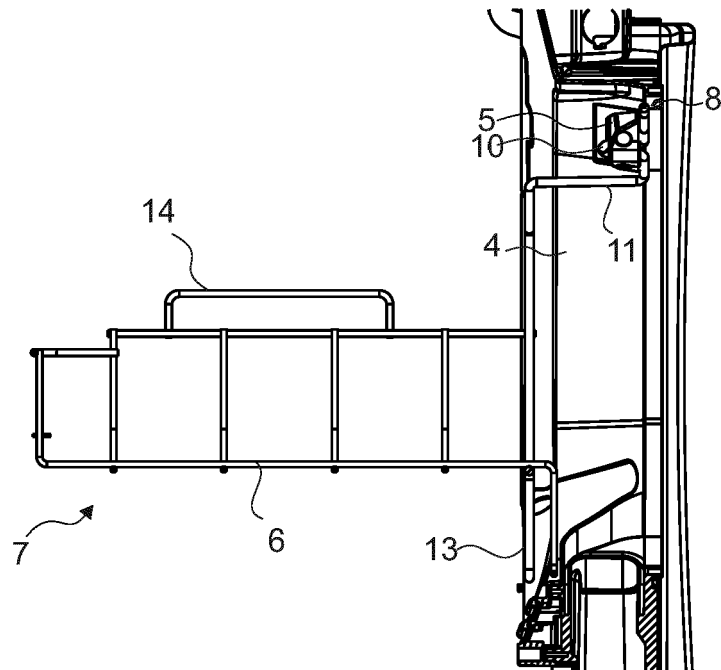


Fig.4

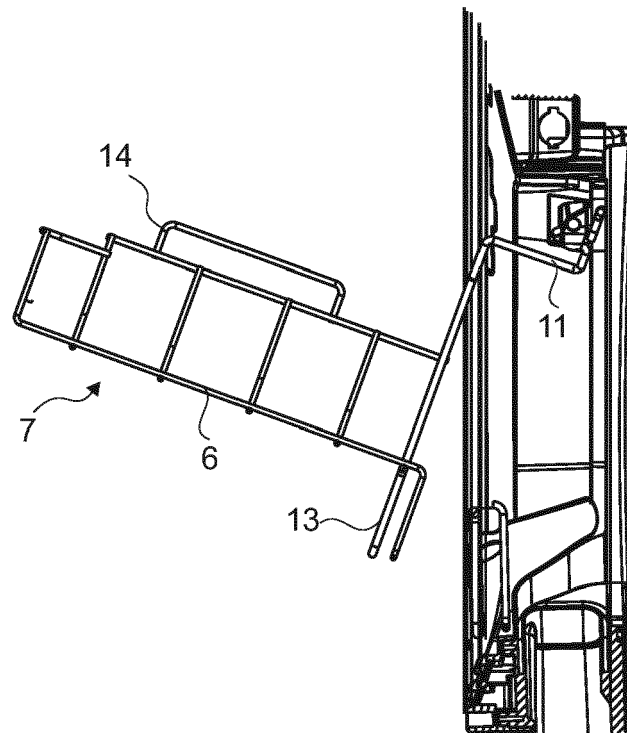


Fig.5

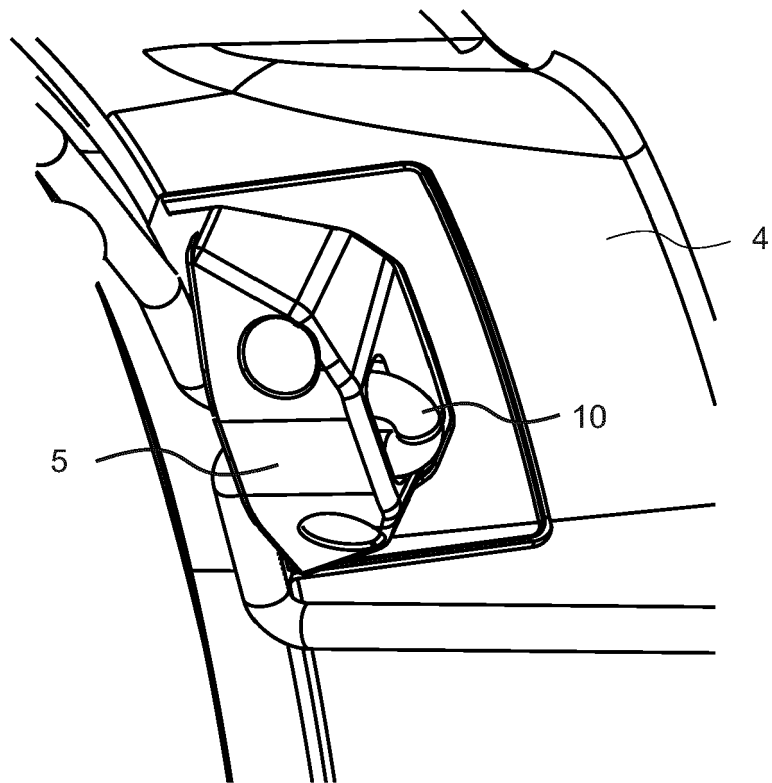
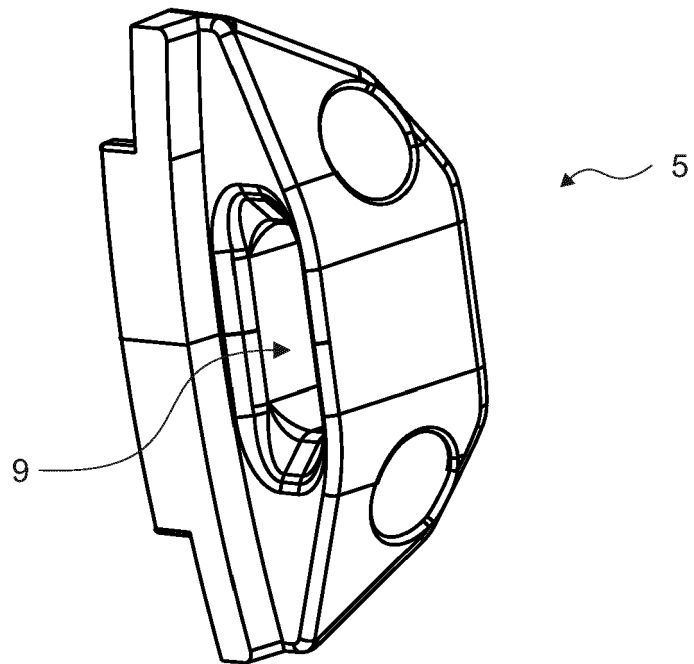


Fig.6





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