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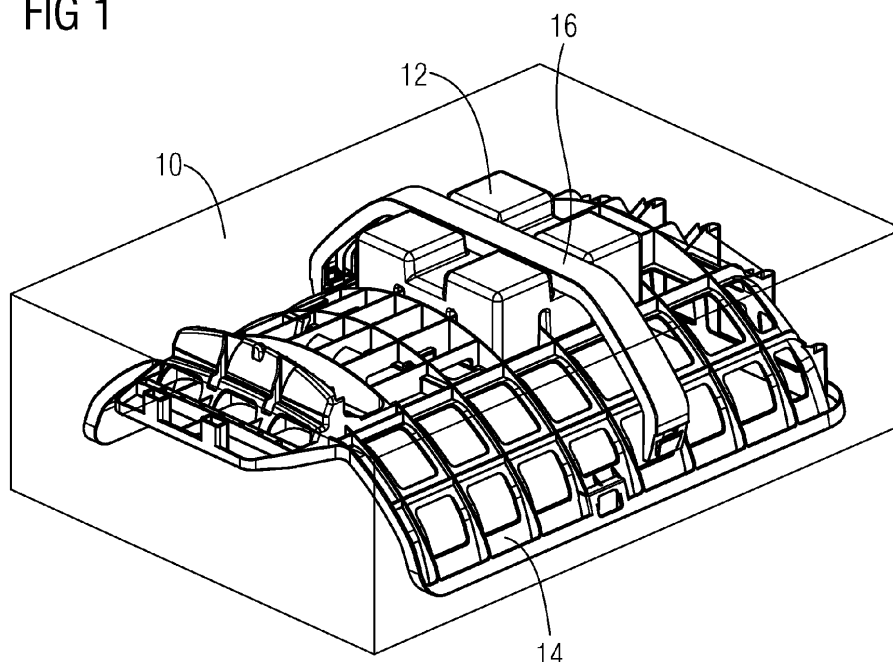
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(54) **A package system for a laundry rack of a laundry dryer**

(57) The present invention relates to a package system for laundry rack, which laundry rack includes a cage (14) with grid structure and an elongated handle (16) attachable at said cage (14). The package system includes a container (10) for receiving the laundry rack and at least one shaped part (12) for supporting the cage (14) and the handle (16). The shaped part (12) is provided for

avoiding movements of the cage (14) and/or the handle (16) inside the container (10). One side of the shaped part (12) is adapted to the form of the cage (14). Another side of the shaped part (12) is adapted to the form of the handle (16). The shaped part (12) is further provided as a bed-plate for the laundry rack in order to park said laundry rack. Further, the present invention relates to a laundry rack for a laundry dryer including a package system.

FIG 1



Description

[0001] The present invention relates to a package system for a laundry rack of a laundry dryer according to the preamble of claim 1. Further, the present invention relates to a laundry rack for a laundry dryer including a package system according to the preamble of claim 9.

[0002] Some laundry dryers comprise a laundry rack as an accessory. Said laundry rack is arranged inside the laundry drum. The laundry rack can be used for storing delicate laundry to be dried. The storage of the delicate laundry in the laundry rack reduces fabric damages during the drying process, since there is no contact of the laundry with the inner wall of the laundry drum.

[0003] Usually the laundry rack is sold together with the laundry dryer. In doing so the laundry rack is placed inside the laundry drum and blocked by a polystyrene packaging. Said polystyrene packaging is typically thrown away before the first use of the laundry dryer. However, the laundry rack cannot be sold as an independent accessory for the laundry dryer, since an adequate packaging is not available.

[0004] It is an object of the present invention to provide a package system for a laundry rack of a laundry dryer, which allows the sale of the laundry rack as an independent accessory.

[0005] The object of the present invention is achieved by the package for a laundry rack of a laundry dryer according to claim 1.

[0006] According to the present invention one side of a package shaped part is adapted to the form of the laundry rack cage and another side of the shaped part is adapted to the form of the handle, wherein the shaped part is further provided as a bed-plate for the laundry rack in order to park said laundry rack.

[0007] The core of the present invention is the structure and the applications of the shaped part. On the one hand the shaped part is a component of the package system. On the other hand the same shaped part is a support for the laundry rack. The shaped part as component of the package system prevents movements of the cage and the handle inside the container. The shaped part as support for the laundry rack allows a stable parking of the laundry rack, when said laundry rack has been unpacked and is not in use. For these purposes the shaped part has a simple structure. In particular, the package system of the present invention allows the sale of the laundry rack as an independent accessory.

[0008] For example, the container includes a carton box.

[0009] Alternatively or additionally, the container includes a shrink plastic envelope.

[0010] Further, the one side of the shaped part is adapted to a portion, preferably a central portion, of the bottom of the cage.

[0011] Preferably, the one side of the shaped part comprises at least two grooves adapted to the grid structure at the bottom of the cage.

[0012] In a similar way, the other side of the shaped part comprises at least one groove adapted to a portion of the handle, preferably said groove is adapted to a central portion of the handle.

[0013] Preferably, the shaped part is substantially block-shaped.

[0014] In particular, the shaped part is made of polystyrene.

[0015] The object of the present invention is further achieved by the laundry rack for a laundry dryer including a package system according to claim 9.

[0016] According to the present invention one side of the shaped part is adapted to the form of the cage and another side of the shaped part is adapted to the form of the handle, wherein the shaped part is further provided as a bed-plate for the laundry rack in order to park said laundry rack.

[0017] In particular, the laundry rack comprises the package system mentioned above.

[0018] The novel and inventive features believed to be the characteristic of the present invention are set forth in the appended claims.

[0019] The invention will be described in further detail with reference to the drawings, in which

FIG 1 illustrates a perspective view of a package system with a laundry rack for a laundry dryer according to a preferred embodiment of the present invention,

FIG 2 illustrates a side view of the package system with the laundry rack for the laundry dryer according to the preferred embodiment of the present invention,

FIG 3 illustrates a front view of the package system with the laundry rack for the laundry dryer according to the preferred embodiment of the present invention,

FIG 4 illustrates an exploded perspective view of the laundry rack with a shaped part of the package system according to the preferred embodiment of the present invention,

FIG 5 illustrates a perspective view at the top side of the shaped part of the package system according to the preferred embodiment of the present invention,

FIG 6 illustrates a perspective view at the bottom of the shaped part of the package system according to the preferred embodiment of the present invention,

FIG 7 illustrates a perspective view of the laundry rack and the shaped part of the package system according to the preferred embodiment of

the present invention,

FIG 8 illustrates a perspective view of the laundry rack and the shaped part of the package system according to the preferred embodiment of the present invention,

FIG 9 illustrates a front view of the laundry rack and the shaped part of the package system according to the preferred embodiment of the present invention,

FIG 10 illustrates a sectional side view of the laundry rack and the shaped part of the package system according to the preferred embodiment of the present invention, and

FIG 11 illustrates a side view of a laundry dryer and the laundry rack with the shaped part of the package system according to the preferred embodiment of the present invention.

[0020] FIG 1 illustrates a perspective view of a package system with a laundry rack for a laundry dryer 22 according to a preferred embodiment of the present invention. The laundry rack is provided for storing delicate pieces of laundry. The laundry rack is insertable inside a laundry drum of the laundry dryer 22. In FIG 1 the laundry rack is boxed by the package system.

[0021] The package system comprises a container 10 and a shaped part 12. In this example, the container 10 is block-shaped box. For the purpose of illustration the container 10 is represented as a transparent box in FIG 1. However, the transparent container 10 is not necessary. In general, the container 10 may be non-transparent, partially transparent or completely transparent. For example, the container 10 is a carton box. Further, the container 10 may be a shrink plastic envelope.

[0022] The laundry rack comprises a cage 14 and a handle 16. The cage 14 comprises walls formed as grids. Further, the cage 14 comprises also open sides. An open top side of the cage 14, i.e. the side of the cage 14 provided for receiving articles to be dried, lies on the bottom of the container 10. The handle 16 is arranged in an upper portion of the container 10 and above the cage 14 on a side thereof which is opposite to that receiving articles to be dried.

[0023] The shaped part 12 of the package system is arranged between the cage 14 and the handle 16. An upper side of the shaped part 12 is form-locking, or, in other words, positive locking, to a portion of the handle 16, preferably such portion is a central portion of the handle 16. A lower side of the shaped part 12 is form-locking to a portion of a bottom of the cage 14, preferably such portion is a central portion of the bottom of the cage 14. The shaped part 12 avoids movements and damages of the cage 14 and the handle 16. For example, the shaped part 12 is made of polystyrene. The container 10 encloses

the cage 14, the shaped part 12 and the handle 16. The container 10 is marginally bigger than the arrangement of the cage 14, the shaped part 12 and the handle 16.

[0024] FIG 2 illustrates a side view of the package system with the laundry rack for the laundry dryer 22 according to the preferred embodiment of the present invention. In FIG 2 the laundry rack is boxed by the package system. FIG 2 clarifies the arrangement of the cage 14, the shaped part 12 and the handle 16 inside the container 10.

[0025] The container 10 encloses the cage 14, the shaped part 12 and the handle 16, so that the size of the boxed laundry rack is minimized. The container 10 is marginally bigger than the arrangement of the cage 14, the shaped part 12 and the handle 16.

[0026] FIG 3 illustrates a front view of the package system with the laundry rack for the laundry dryer 22 according to the preferred embodiment of the present invention. Also in FIG 3 the arrangement of the cage 14, the shaped part 12 and the handle 16 inside the container 10 is clarified.

[0027] The handle 16 is disconnected from the cage 14, when the laundry rack is boxed by the package system. In contrast, the handle 16 is connected to the cage 14, when the laundry rack is in use. The handle 16 is elongated and curved. The bottom and the side walls of the cage 14 form a curved cross-section of the cage 14. The handle 16 and the cross-section of the cage 14 are similarly curved. The orientation of the handle 16 in view of the cage 14 contributes to the minimization of the size of the boxed laundry rack.

[0028] FIG 4 illustrates an exploded perspective view of the laundry rack with the shaped part 12 of the package system according to the preferred embodiment of the present invention. The shaped part 12 is arranged between the cage 14 and the handle 16.

[0029] A top side of the shaped part 12 comprises two grooves 18 arranged perpendicular to each other. Thus, the grooves 18 form a cross on the top side of the shaped part 12. One of the grooves 18 is provided for a form-locking receiving of a portion of the handle 16. In other words, the groove 18 has the same width or is marginally wider than said portion of the handle 16.

[0030] A bottom of the shaped part 12 comprises four grooves 20. In each case two grooves 20 are arranged in parallel to each other. Further, the pairs of the parallel grooves 20 are arranged perpendicular to each other. The grooves 20 at the bottom of the shaped part 12 are adapted to the grid structure of the bottom of the cage 14. Thus, the grooves 20 allow a form-locking receiving of the shaped part 12 by a portion of the bottom of the cage 14.

[0031] FIG 5 illustrates a perspective view at the top side of the shaped part 12 of the package system according to the preferred embodiment of the present invention. The shaped part 12 is substantially block-shaped. FIG 5 clarifies the structure of the top side of the shaped part 12.

[0032] The two grooves 18 are arranged perpendicular

to each other and form a cross on the top side of the shaped part 12. One of the grooves 18 is provided for a form-locking receiving of a portion of the handle 16.

[0033] FIG 6 illustrates a perspective view at the bottom of the shaped part 12 of the package system according to the preferred embodiment of the present invention. FIG 6 clarifies the structure of the bottom of the shaped part 12.

[0034] The four grooves 20 are arranged in the bottom of the shaped part 12. Two grooves 20 are arranged in parallel in each case. The pairs of the parallel grooves 20 are arranged perpendicular to each other. The structure of the grooves 20 at the bottom of the shaped part 12 is adapted to the grid structure of the bottom of the cage 14. The grooves 20 allow that the shaped part 12 may be received by a portion of the bottom of the cage 14, which is on a cage side opposite to that side provided for receiving articles to be dried.

[0035] FIG 7 illustrates a perspective view of the laundry rack and the shaped part 12 of the package system according to the preferred embodiment of the present invention. In FIG 7 the handle 16 is attached at the cage 14, wherein the shaped part 12 is arranged below the cage 14.

[0036] FIG 7 clarifies that the bottom side of the shaped part 12 has a counter shaped structure adapted to be coupled with a portion of the bottom of the cage 14. Preferably the shaped part 12 has the same structure as the central portion of the bottom of the cage 14. The bottom side of the shaped part 12 is form-locking with said portion of the bottom of the cage 14.

[0037] FIG 8 illustrates a perspective view of the laundry rack and the shaped part of the package system according to the preferred embodiment of the present invention. In FIG 8 the handle 16 is attached at the cage 14, wherein the shaped part 12 is received by a portion of the bottom of the cage 14, preferably such portion is a central portion of the bottom of the cage 14.

[0038] FIG 8 clarifies that the shaped part 12 forms a bed-plate for the laundry rack, so that the laundry rack can be stably parked after being unpacked and when it is not in use, i.e. when it is not inserted into a drum of a laundry dryer. Thus, the shaped part 12 has two different functions. On the one hand the shaped part 12 belongs to the package system for the laundry pack and allows a stable arrangement of the cage 14 and the handle 16 inside the container 10. On the other hand the shaped part 12 forms the bed-plate for parking the laundry rack, when said laundry rack is not in use and has to be stored outside the laundry drum.

[0039] FIG 9 illustrates a front view of the laundry rack and the shaped part 12 of the package system according to the preferred embodiment of the present invention. The laundry rack is supported by the shaped part 12. The shaped part 12 allows a stable parking of the laundry rack on a supporting base 24. The shaped part 12 forms a stable bed-plate for the laundry rack.

[0040] FIG 10 illustrates a sectional side view of the

laundry rack and the shaped part of the package system according to the preferred embodiment of the present invention. The shaped part 12 supports the laundry rack and allows a stable parking of said laundry rack on a supporting base 24. In FIG 10 it can also be seen how the shaped part 12 is received by the bottom of the cage 14.

[0041] FIG 11 illustrates a side view of a laundry dryer 22 and the laundry rack with the shaped part of the package system according to the preferred embodiment of the present invention. The laundry rack is parked on a top wall 26 of the laundry dryer 22. The shaped part 12 forms the bed-plate between the laundry rack and the top wall 26 of the laundry dryer.

[0042] Although an illustrative embodiment of the present invention has been described herein with reference to the accompanying drawings, it is to be understood that the present invention is not limited to that precise embodiment, and that various other changes and modifications may be affected therein by one skilled in the art without departing from the scope or spirit of the invention. All such changes and modifications are intended to be included within the scope of the invention as defined by the appended claims.

List of reference numerals

[0043]

10	container
12	shaped part
14	cage
16	handle
18	groove
20	groove
22	laundry dryer
24	supporting base
26	top wall of the laundry dryer

Claims

1. A package system for a laundry rack, which laundry rack includes a cage (14) with grid structure and an elongated handle (16) attachable at said cage (14), wherein
 - the package system includes a container (10) for receiving the laundry rack,
 - the package system includes at least one

shaped part (12) for supporting the cage (14) and the handle (16), and
 - the shaped part (12) is provided for avoiding movements of the cage (14) and/or the handle (16) inside the container (10),

5

characterized in, that

one side of the shaped part (12) is adapted to the form of the cage (14) and another side of the shaped part (12) is adapted to the form of the handle (16), wherein the shaped part (12) is further provided as a bed-plate for the laundry rack in order to park said laundry rack.

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2. The package system according to claim 1, **characterized in, that** the container (10) includes a carton box.

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3. The package system according to claim 1 or 2, **characterized in, that** the container (10) includes a shrink plastic envelope.

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4. The package system according to any one of the preceding claims, **characterized in, that** the one side of the shaped part (12) is adapted to a portion of the bottom of the cage (14).

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5. The package system according to claim 4, **characterized in, that** the one side of the shaped part (12) comprises at least two grooves (20) adapted to the grid structure at the bottom of the cage (14).

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6. The package system according to any one of the preceding claims, **characterized in, that** the other side of the shaped part (12) comprises at least one groove (18) adapted to a portion of the handle (16).

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7. The package system according to any one of the preceding claims, **characterized in, that** the shaped part (12) is substantially block-shaped.

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8. The package system according to any one of the preceding claims, **characterized in, that** the shaped part (12) is made of polystyrene.

50

9. A laundry rack with a package system, wherein

- the laundry rack includes a cage (14) with grid structure and an elongated handle (16),
 - the package system includes a container (10) for receiving the laundry rack,
 - the package system includes at least one

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shaped part (12) for supporting the cage (14) and the handle (16), and
 - the shaped part (12) is provided for avoiding movements of the cage (14) and/or the handle (16) inside the container (10),

characterized in, that

one side of the shaped part (12) is adapted to the form of the cage (14) and another side of the shaped part (12) is adapted to the form of the handle (16), wherein the shaped part (12) is further provided as a bed-plate for the laundry rack in order to park said laundry rack.

10. The laundry rack according to claim 9, **characterized in, that** the laundry rack comprises the package system according to any one of the claims 1 to 8.

FIG 1

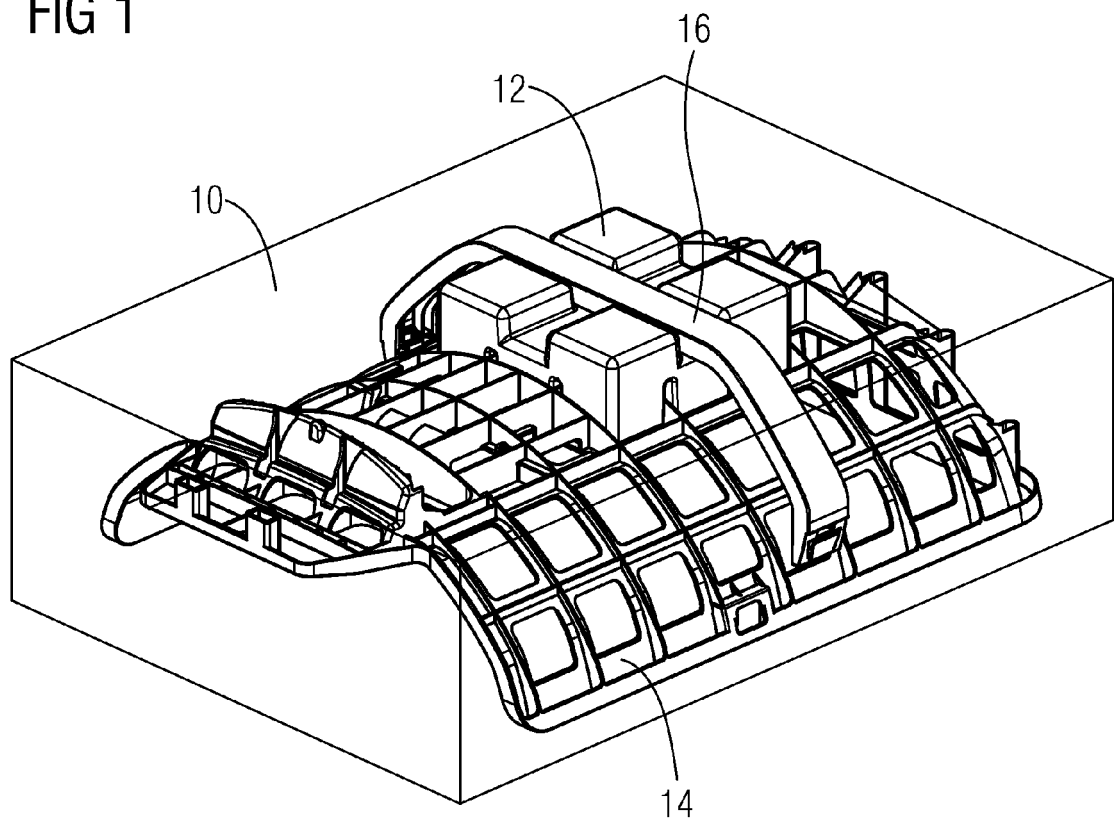


FIG 2

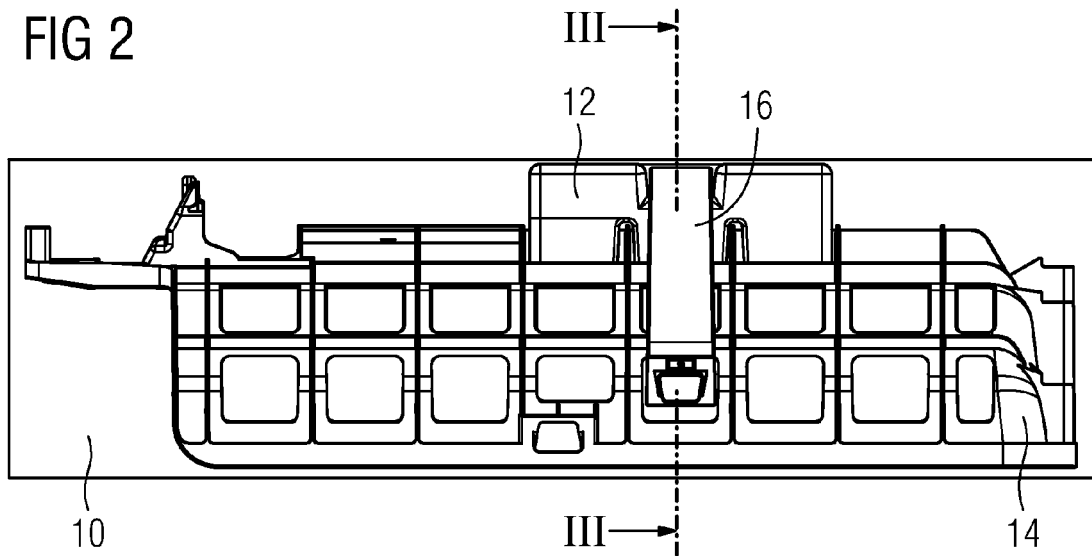


FIG 3

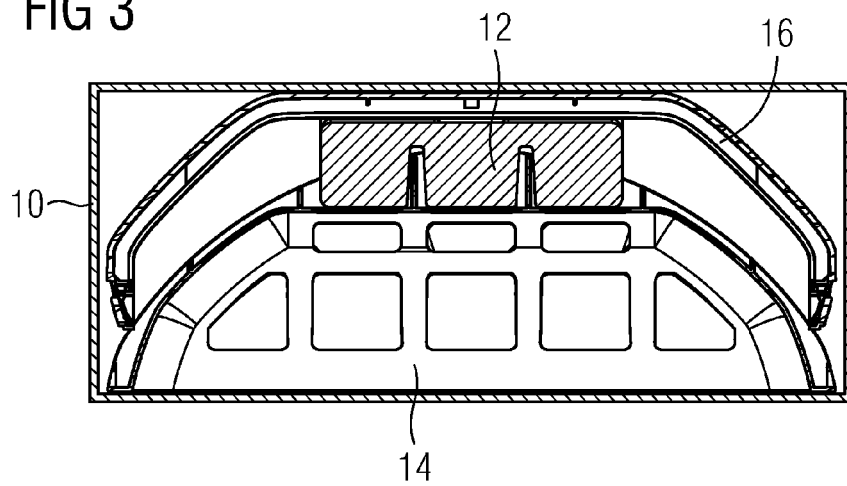


FIG 4

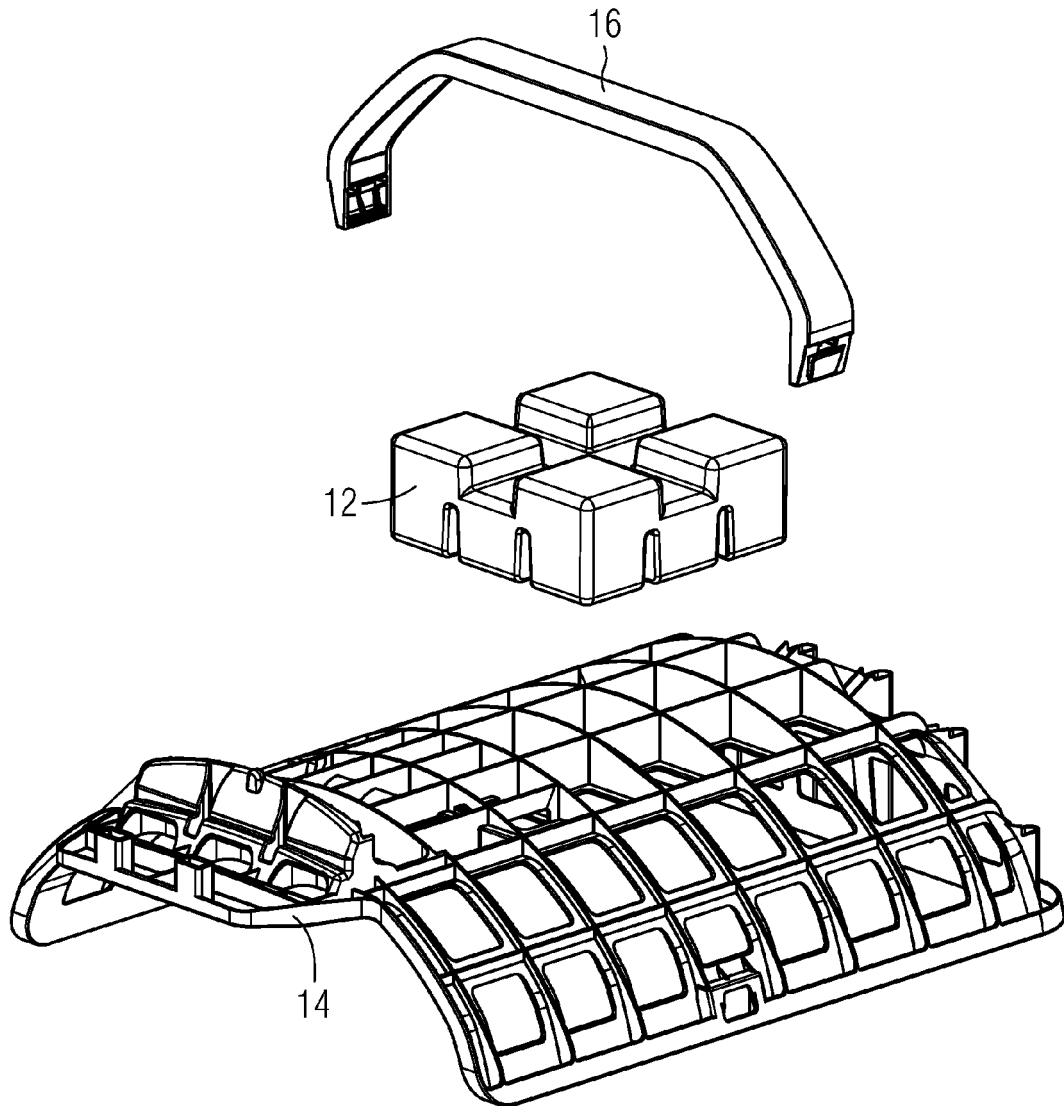


FIG 5

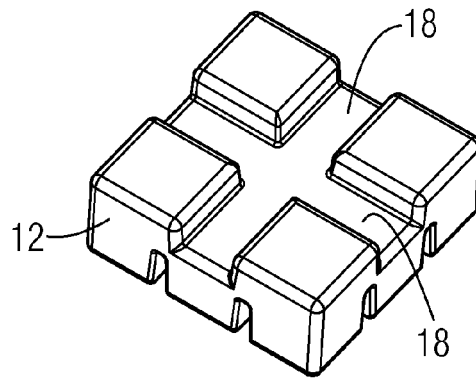


FIG 6

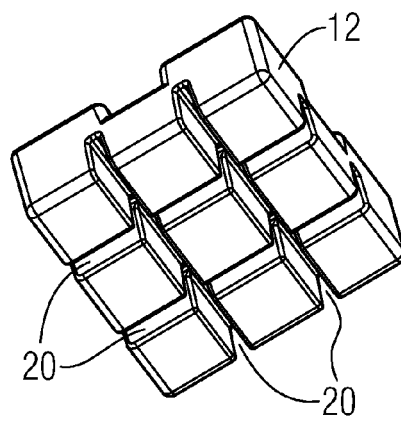


FIG 7

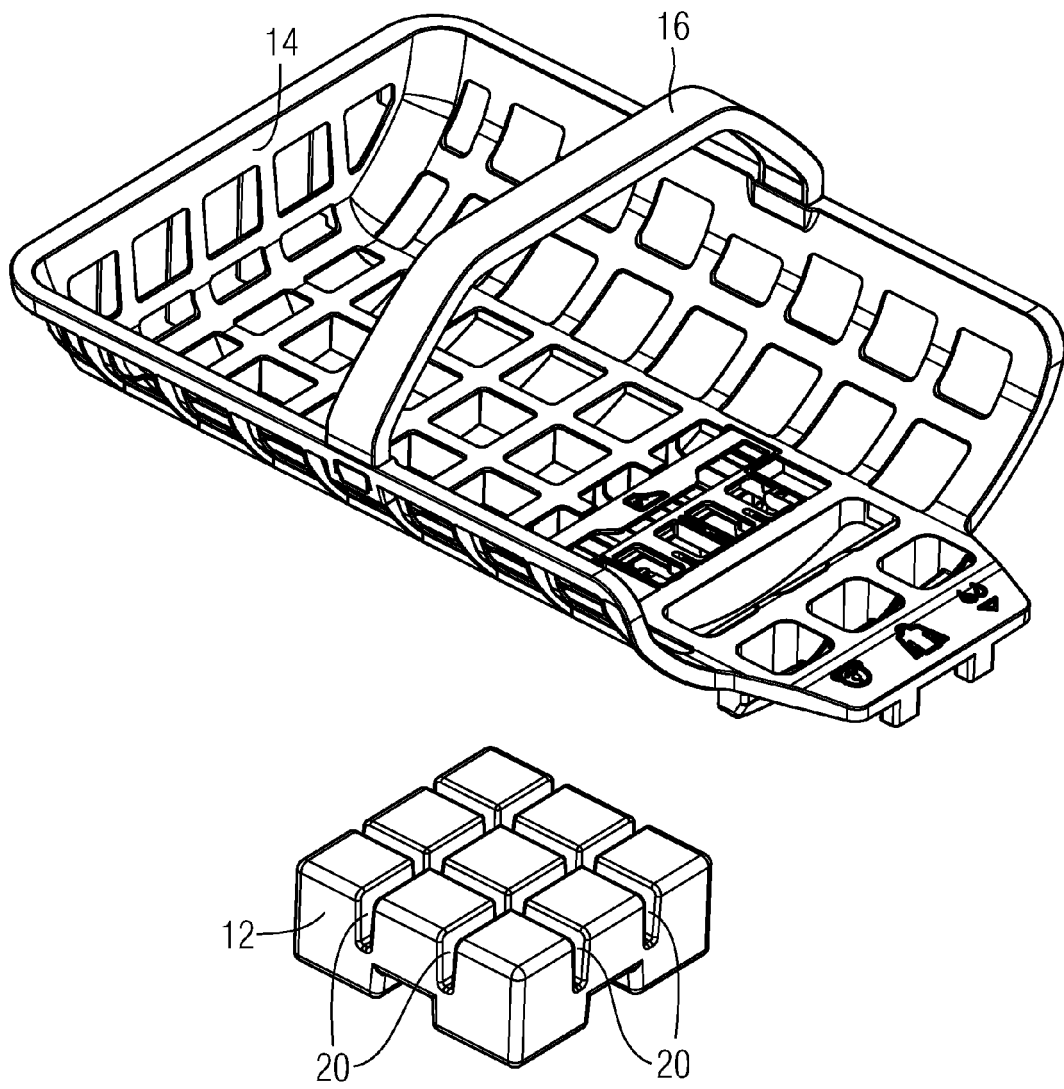


FIG 8

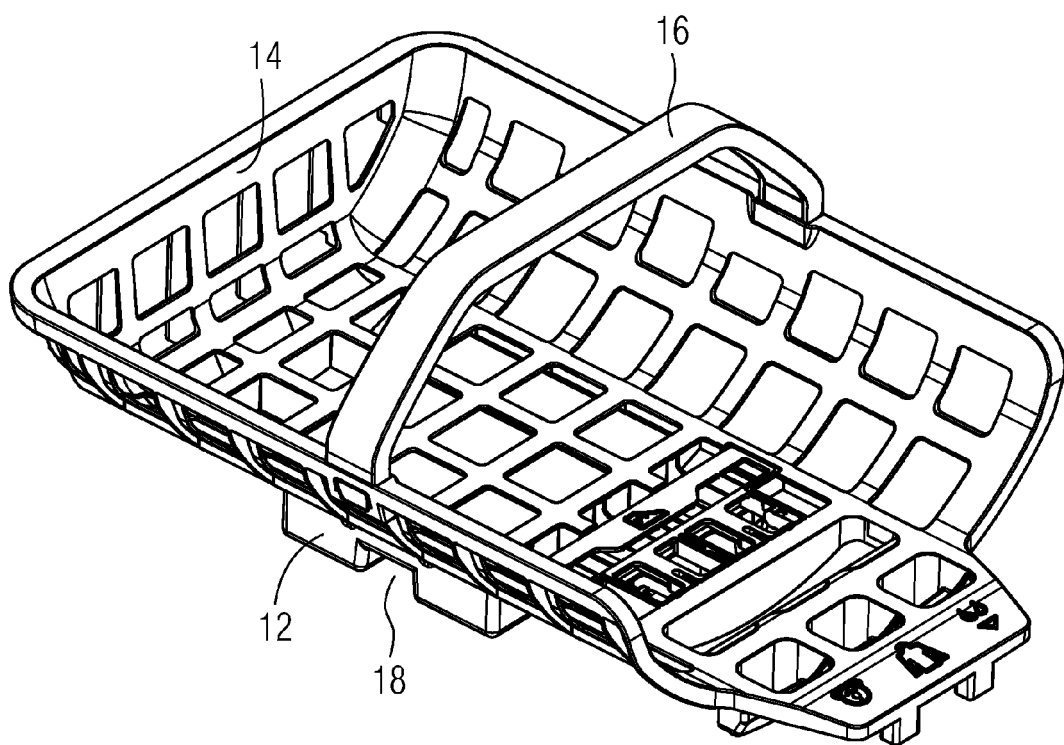


FIG 9

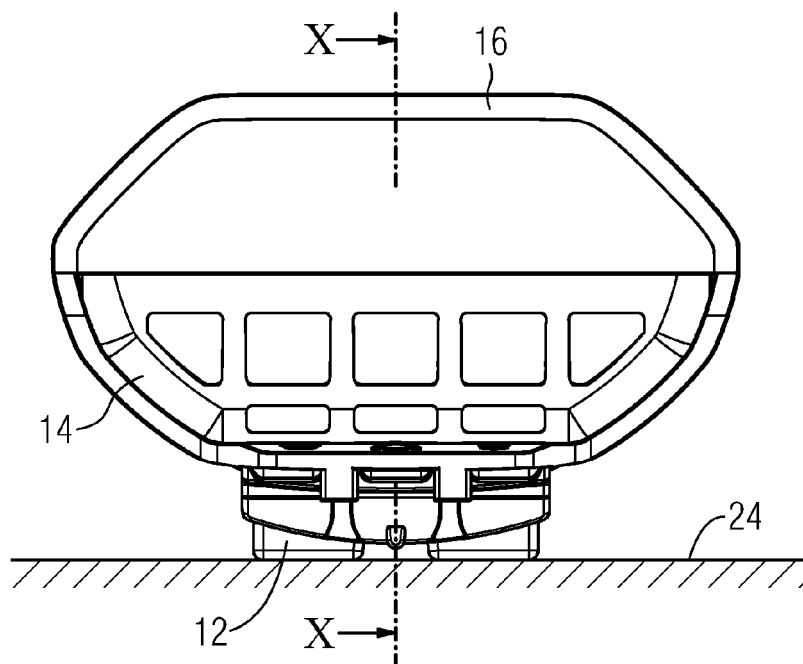


FIG 10

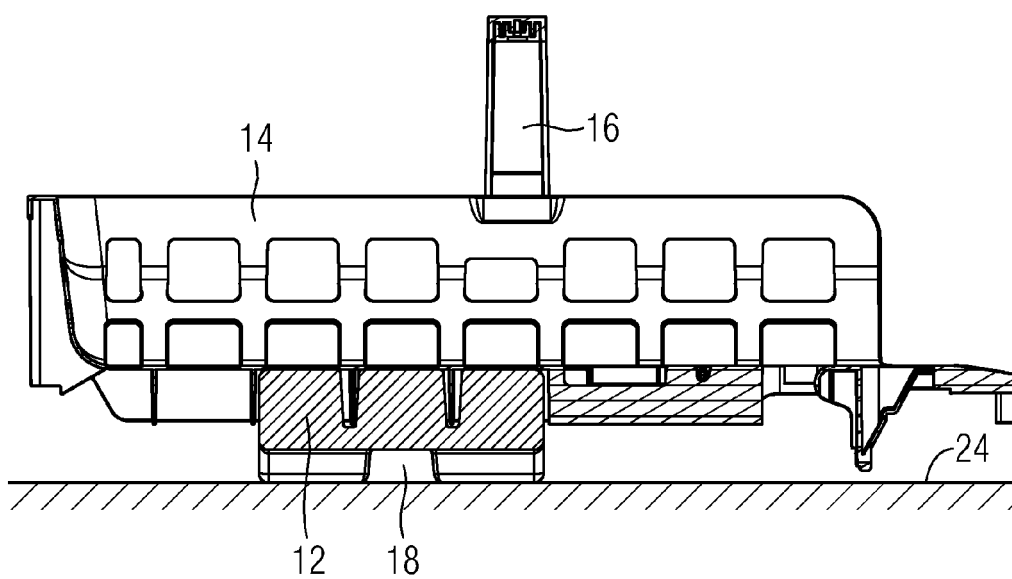
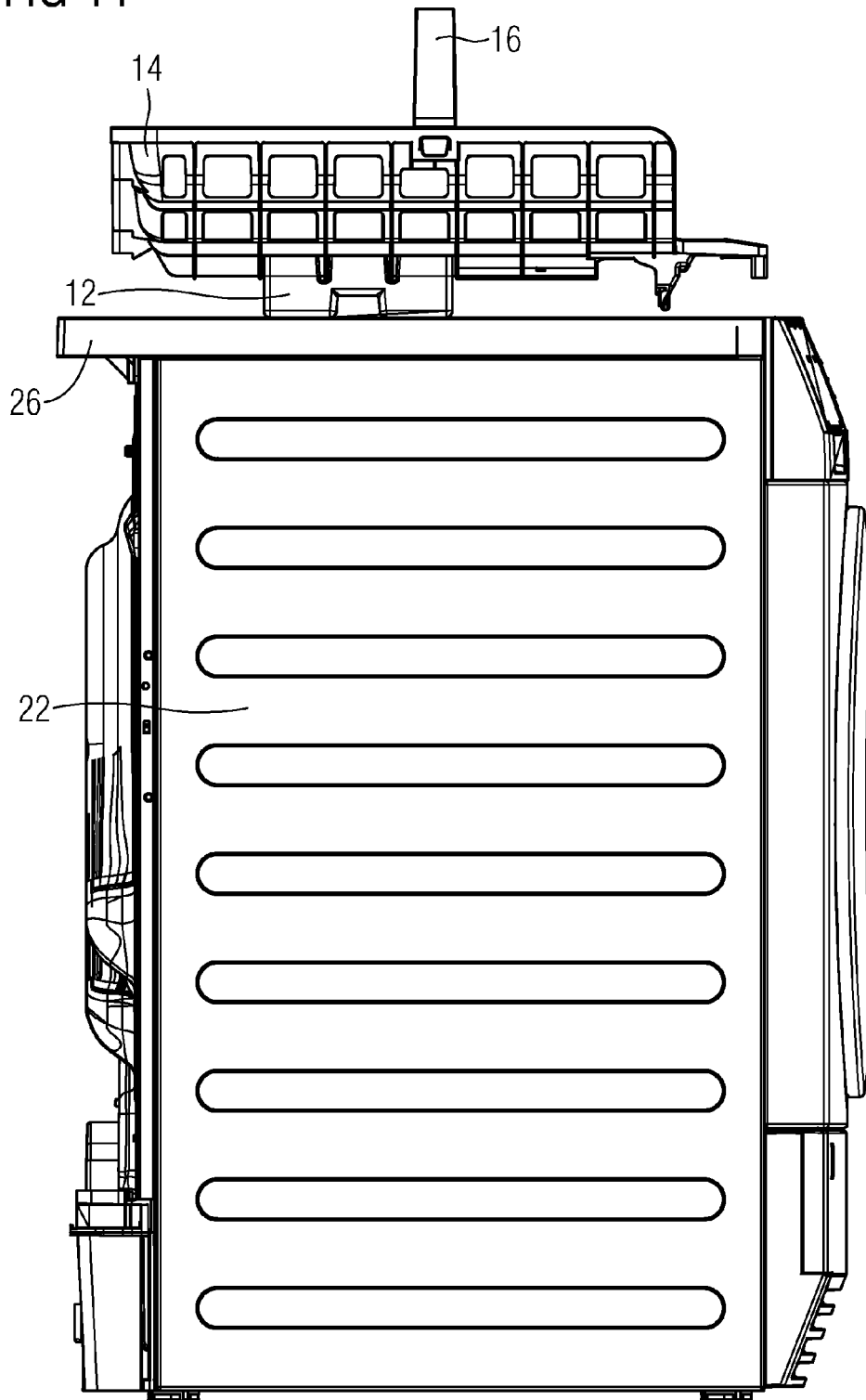


FIG 11





EUROPEAN SEARCH REPORT

Application Number
EP 11 18 7005

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			TECHNICAL FIELDS SEARCHED (IPC)
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 22 March 2012	Examiner Jervelund, Niels
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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