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(54) **A basket**

(57) With the present invention, there is provided a basket (B) placed into a drum (D) of a washer and/or dryer device in order to wash and/or dry at least one article without being damaged in the washer and/or dryer device. The said basket comprises at least two side walls (1) with a grid structure; at least one upper wall (3) and at least one lower wall (4) with a grid structure and con-

necting the side walls (1) to each other at their opposite horizontal edges; and at least one carrying member (5) movably connected to the area where at least one side wall (1) is connected to the lower wall (3) and/or upper wall (4) by means of at least one connecting portion (5a) therein and on which articles to be washed and/or dried are placed.

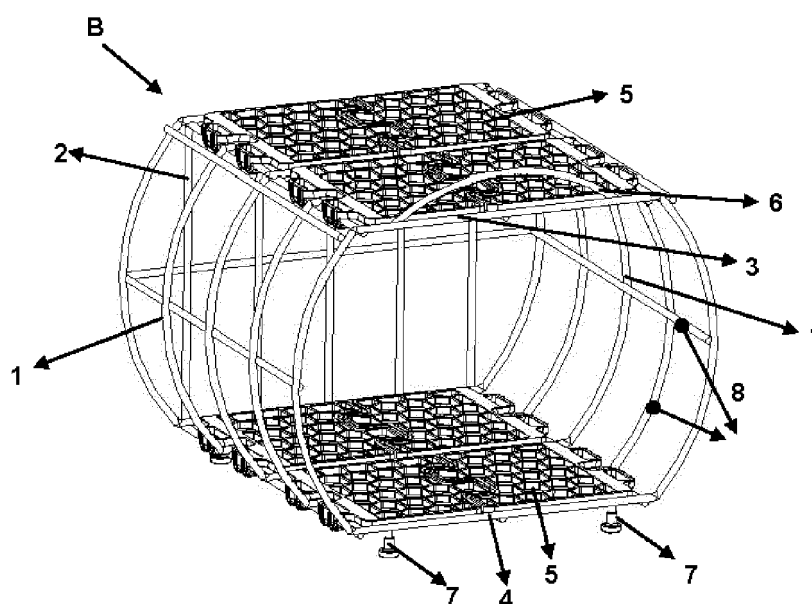


Figure – 1

Description

Field of the Invention

[0001] The present invention relates to a basket for use in washing and/or drying of sensitive articles in a washer and/or dryer device in a reliable manner.

Prior Art

[0002] In particular, washer and/or dryer devices used for washing and/or drying textile articles comprise at least one drum into which articles are placed and at least one boiler surrounding the drum, wherein washing liquid is collected. Preferably, the drum rotatably moves in the boiler and the washing liquid inside the boiler contacts with the articles in the drum so that said articles are washed. In the drying process, hot air is delivered into the boiler and the drum is rotated so as to allow hot air to contact with the articles to be dried. Mixing flanges are included in the drum in order to enhance process efficiency both in the washing and drying processes. These flanges contact with the articles in the drum while it is being rotated so that they enable the washing liquid and/or hot air to contact with distinct surfaces of the articles.

[0003] Though enhancing the efficiency of the washing and drying processes, said flanges damage sensitive textile articles and products including different materials, such as shoes, in washing and/or drying. Therefore, rack systems are used in the prior art that can be mounted to and removed from the drum in such a way that sensitive articles are washed and/or dried in a reliable manner. For example, the dryer disclosed in prior art patent document US2008022551A1 includes a rack mounted to the flanges in the dryer device. Sensitive products such as shoes are placed on the said rack in order to allow them to dry. However, in the system disclosed in this document, those sections of the flange where the rack is connected damage the products to be dried after the rack is removed from the flanges. Furthermore, since a limited number of articles can be dried in the said embodiment, the dryer device operates with a low performance.

Brief Description of the Invention

[0004] With the present invention, there is provided a basket placed into a drum of a washer and/or dryer device in order to wash and/or dry at least one article without being damaged in the washer and/or dryer device. The said basket comprises at least two side walls with a grid structure; at least one upper wall and at least one lower wall with a grid structure and connecting the side walls to each other at their opposite horizontal edges; and at least one carrying member movably connected to the area where at least one side wall is connected to the lower wall and/or upper wall by means of at least one connecting portion therein and on which articles to be

washed and/or dried are placed.

[0005] With the movement of the carrying members included in the basket according to the present invention, when the basket is placed into a drum, a large surface is obtained for placing articles to be washed and/or dried. Thus, washing and/or drying of sensitive articles is performed in a reliable manner.

Object of the Invention

[0006] An object of the present invention is to provide a basket suitable for use in washing and/or drying of sensitive articles in a washer and/or dryer device in a reliable manner.

[0007] Another object of the present invention is to provide a basket placed into a drum of a washer and/or dryer device.

[0008] Another object of the present invention is to provide a basket enabling the washer and/or dryer device where it is used to operate in an efficient manner.

[0009] Still another object of the present invention is to provide a washer and/or dryer device suitable for use of the said basket therein.

Description of the Drawings

[0010] The exemplary embodiments of the basket according to the invention are illustrated in the enclosed drawings, in which:

Figure 1 is a perspective view of a closed position of a basket.

Figure 2 is a perspective view of an opened position of the basket.

Figure 3 is a perspective view of the basket, as used in a drum.

[0011] All the parts illustrated in the figures are individually assigned a reference numeral and the corresponding terms of these numbers are listed as follows:

Basket	(B)
Drum	(D)
Mixing flange	(M)
Side wall	(1)
Rear wall	(2)
Upper wall	(3)
Lower wall	(4)
Carrying member	(5)
Connecting portion	(5a)
Handle	(6)
Bracket	(7)
Bar	(8)

Description of the Invention

[0012] Washer and/or dryer devices comprise at least one drum into which articles to be washed/dried are placed. The said drum comprises at least one mixing flange in order to enhance efficiency of the washing/drying process. However, this mixing flange causes damage to sensitive articles (i.e. textile articles such as veil or products such as shoes). Therefore, with the present invention, there is provided a basket placed into a drum of a washer and/or dryer device in order to allow sensitive articles to be washed and/or dried without being damaged.

[0013] The inventive basket (B), as illustrated in figures 1-3, comprises at least two side walls (1) with a grid structure; at least one upper wall (3) and at least one lower wall (4) with a grid structure and connecting the side walls (1) to each other at their opposite horizontal edges; and at least one carrying member (5) movably connected to the area where at least one side wall (1) is connected to the lower wall (3) and/or upper wall (4) by means of at least one connecting portion (5a) therein and on which articles to be washed and/or dried are placed. The basket (B) preferably comprises at least one rear wall (2) with a grid structure and connecting the side walls (1) to each other at their opposite vertical edges (i.e. at their edges located on the back side). The said side walls (1), rear wall (2), upper wall (3) and/or lower wall (4) comprise at least two bars (8) (for example, at least one horizontal and at least one vertical bar (8)), preferably in cylindrical form. Thus, washing liquid and/or hot air used for drying can easily pass through spaces between the bars (8).

[0014] In the basket (B) according to the present invention, the carrying members (5) can move in relation to the side walls (1) to which they are connected. In this way, said carrying members (5) can be moved into a position (closed position of the basket (B)) so as to close the upper wall (3), as shown in figure 1, or a position (opened position of the basket (B)) so as to move from the upper wall (3), as shown in figure 2. In an illustrative embodiment of the present invention, the basket (B) is placed into a drum (D) of a washer and/or dryer device, in closed position. The said basket (B) is placed into the drum (D) such that it is preferably interposed between the two mixing flanges (M) included in the drum (D). The reason why the basket (B) is in closed position, while it is being placed into the drum, is to allow it to pass through the door opening of the washer and/or dryer device. After the basket (B) is placed into the said drum (D), the carrying members (5) are moved, as shown in figure 3, in order to switch the basket (B) into the opened position. When the basket (B) is switched into the opened position, articles placed on the carrying members (5) can be positioned to be more distant from each other. Thus, washing and/or drying process is performed in a reliable manner.

[0015] In a preferred embodiment of the invention, said connecting portion (5a) is in the form of a hook surround-

ing at least part of the bar (8) included in the side wall (1). Thus, the carrying member (5) is released from the basket (B) by movement of the connecting portion (5a) with respect to the bar (8) and optionally by removing the connecting portion (5a) from the bar (8).

[0016] In another preferred embodiment of the invention, the said basket (B) comprises at least three brackets (7) provided on the lower wall (4) and maintaining the basket (B) in a reliable position by contacting with the drum (D) when the basket (B) is placed into the drum (D). The said brackets (7) preferably comprise a soft material such as rubber on those parts contacting with the drum (D) so as to prevent the drum (D) from being damaged.

[0017] In another preferred embodiment of the invention, the basket (B) according to the present invention comprises at least one handle (6) provided preferably on the upper wall (3) and allowing the user to handle the basket (B) easily. With the said handle (8), the user can place the basket (B) into the drum (D) in an easy and reliable manner or remove it from the drum (D).

[0018] In another preferred embodiment of the invention, said side walls (1) are convex (such as an arc of circle). Thus, the basket (B) is easily passed through the door opening of a washer and/or dryer device which is mainly circular.

[0019] Furthermore, with the present invention, there is provided a washer and/or dryer device (not shown) suitable for use of the said basket (B) therein. Said washer and/or dryer device comprises at least one control unit (which can be a processor controlling operation of the device) that prevents movement of the drum (D) when the basket (B) is placed into the drum (D). By preventing the drum (D) from moving, when the basket (B) is inside the drum (D), articles on the carrying member (5) are prevented to turn over during washing and/or drying process. Preventing the movement of the drum (D) may either be adjusted by the user or may be determined by the control unit upon detection of the basket (B) via at least one detector (not shown) included in the drum (D). The said detector is configured to be connected with the control unit and notify the control unit by detecting a basket when the basket (B) is placed into the drum (D).

[0020] In another preferred embodiment of the invention, said washer and/or dryer device comprises at least one locking mechanism (not shown) associated with the said control unit and maintaining the drum (D) in a stable position. With the said locking mechanism, undesired (for example, due to washing liquid supplied to the drum (D)) movement of the drum (D), when the basket (B) is in the drum (D), is prevented.

[0021] With the movement of the carrying members (5) included in the basket (B) according to the present invention, when the basket (B) is placed in a drum (D), a large surface is obtained for placing articles to be washed and/or dried. Thus, washing and/or drying of sensitive articles is performed in a reliable manner.

Claims

1. A basket (B) placed into a drum (D) of a washer and/or dryer device in order to wash and/or dry at least one article without being damaged in the washer and/or dryer device, **characterized by** comprising;
 - at least two side walls (1) with a grid structure;
 - at least one upper wall (3) and at least one lower wall (4) with a grid structure and connecting the side walls (1) to each other at their opposite horizontal edges; and
 - at least one carrying member (5) movably connected to the area where at least one side wall (1) is connected to the lower wall (3) and/or upper wall (4) by means of at least one connecting portion (5a) therein and on which articles to be washed and/or dried are placed.
2. A basket (B) according to claim 1, **characterized by** comprising at least one rear wall (2) with a grid structure and connecting the side walls (1) to each other at their opposite vertical edges.
3. A basket (B) according to claim 1, **characterized in that** the side walls (1) comprise at least two bars (8).
4. A basket (B) according to claim 1, **characterized in that** the upper wall (3) comprises at least two bars (8).
5. A basket (B) according to claim 1, **characterized in that** the lower wall (4) comprises at least two bars (8).
6. A basket (B) according to claim 2, **characterized in that** the rear wall (2) comprises at least two bars (8).
7. A basket (B) according to claim 3, **characterized in that** the said connecting portion (5a) is in the form of a hook surrounding at least part of the bar (8) included in the side wall (1).
8. A basket (B) according to claim 1, **characterized by** comprising at least three brackets (7) provided on the lower wall (4) and contacting with a drum (D) when the basket (B) is placed into the drum (D).
9. A basket (B) according to claim 8, **characterized in that** the said brackets (7) comprise a soft material on those parts contacting with the drum (D).
10. A basket (B) according to claim 1, **characterized by** comprising at least one handle (6) to allow the user to handle the basket (B).
11. A basket (B) according to claim 10, **characterized in that** the said handle (6) is positioned on the upper

wall (3).

12. A basket (B) according to claim 1, **characterized in that** the side walls (1) are convex.
13. A washer and/or dryer device suitable for placing a basket (B) according to any one of the preceding claims into at least one drum (D) included therein, **characterized by** comprising at least one control unit that prevents movement of the drum (D) when the basket (B) is placed into the drum (D).
14. A device according to claim 13, **characterized by** comprising at least one detector which is connected with the said control unit and notifies the control unit by detecting a basket when the basket (B) is placed into the drum (D).
15. A device according to claim 13, **characterized by** comprising at least one locking mechanism associated with the said control unit and maintaining the drum (D) in a stable position.
16. A basket (B) according to claim 1, **characterized in that** the carrying member (5) is in the form of a grid.

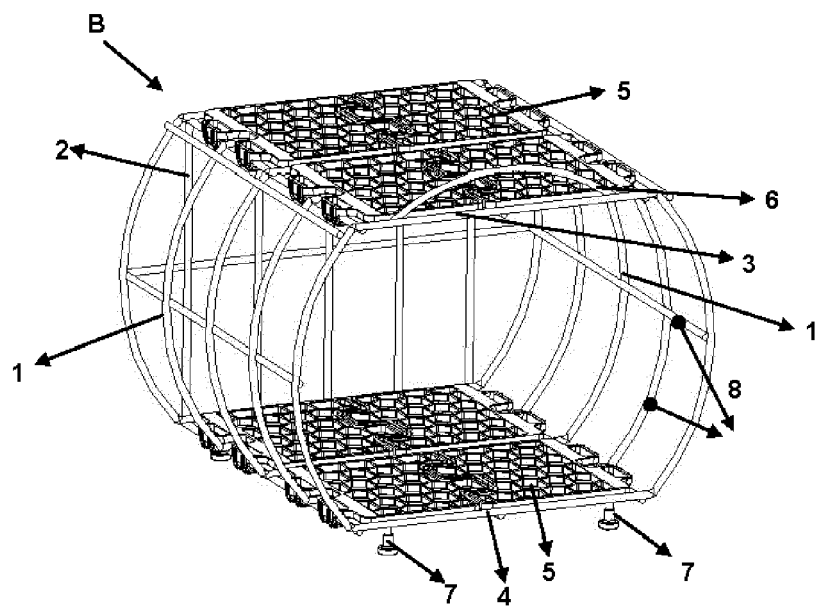


Figure - 1

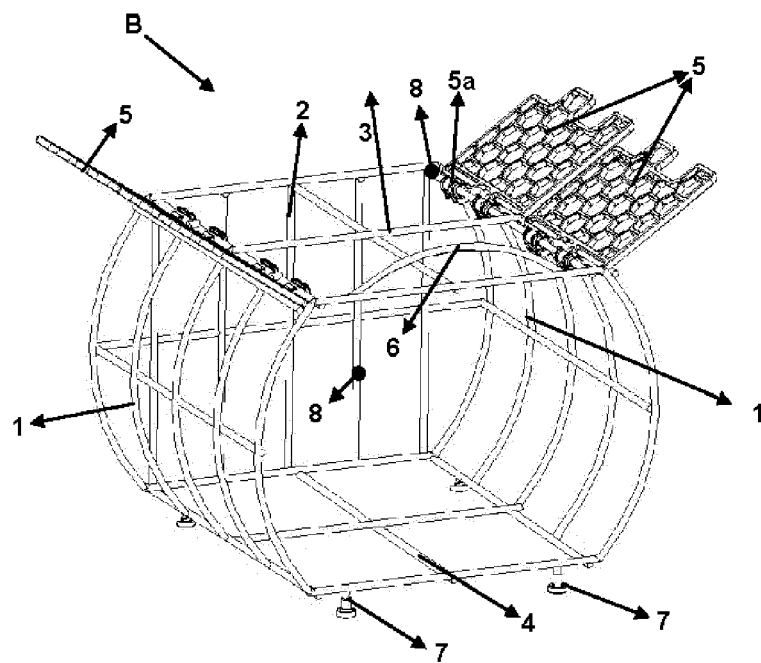


Figure - 2

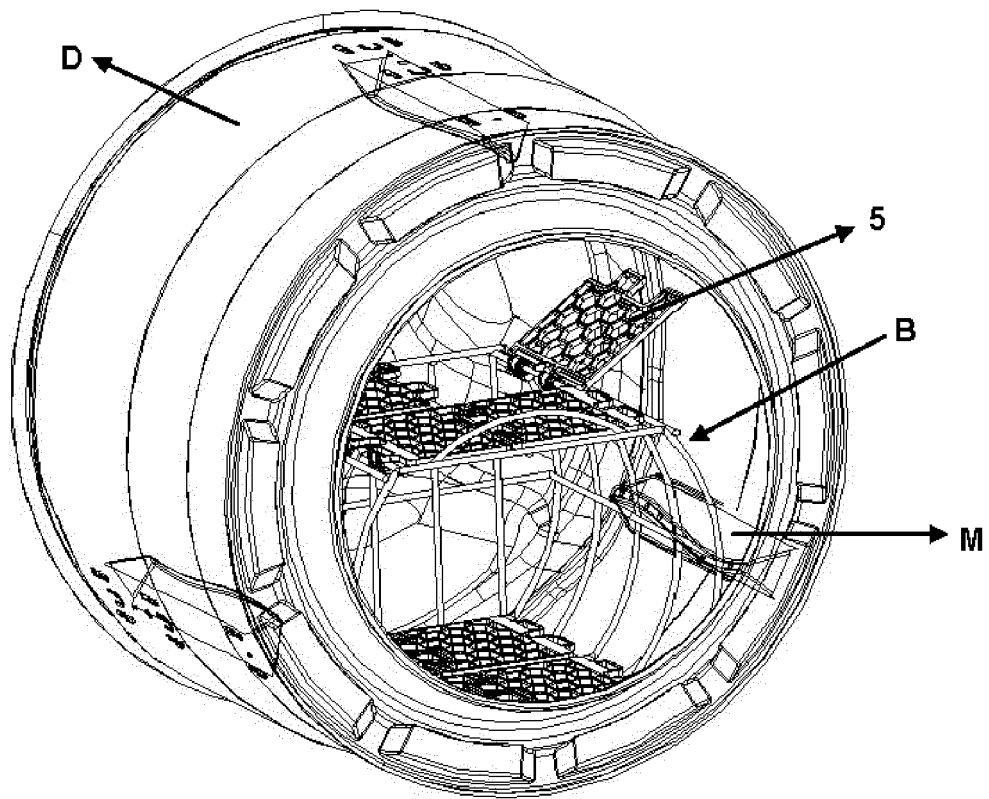


Figure – 3



EUROPEAN SEARCH REPORT

Application Number
EP 14 18 1039

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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A	* paragraphs [0016], [0019], [0020]; figures 1-3, 5 *	3-15	
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A	* column 6, lines 13-20 *	14,15	
A	US 6 212 792 B1 (BIER ROSALIE J [US]) 10 April 2001 (2001-04-10)	1-16	
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			D06F
Place of search		Date of completion of the search	Examiner
Munich		4 November 2014	Westermayer, Wilhelm
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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 14 18 1039

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REFERENCES CITED IN THE DESCRIPTION

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